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- A. S. T. M. Bulletin** siehe: Bull. Amer. Soc. Test. Mat.
- Abh. braunsch. wiss. Ges.** = Abhandlungen der Braunschweigischen wissenschaftlichen Gesellschaft. Verlag: Friedr. Vieweg & Sohn, Braunschweig.
- Abh. dtsh. Mus.** = Abhandlungen und Berichte des Deutschen Museums, München, Düsseldorf. Verlag: R. Oldenbourg und Deutscher Ingenieurverlag.
- Acta cryst. Copenhagen.** Acta crystallographica. Copenhagen, Ejnar Munksgaard.
- Acta metall.** = Acta metalurgica. Pergamon Press, New York.
- Acta phys. austr.** = Acta physica Austriaca. Wien. Verlag: Springer, Wien I, Mölkerbastei.
- Acta radiol. Stockh.** = Acta radiologica. Stockholm.
- Acustica** = Acustica, Zürich 2. Verlag: S. Hirzel, Zürich 4, Stauffacherquai 40.
- Advanc. Sci. London.** = Advancement of Science, London.
- Advanc. Phys.** = Advances in Physics. London.
- Akust. Beihefte** = Akustische Beihefte, Zürich 2. Verlag: S. Hirzel, Zürich 4, Stauffacherquai 40.
- Allg. Wärmetech.** = Allgemeine Wärme-technik. Dissen. Verlagsanstalt H. Beucke u. Söhne, Dissen.
- Alta Frequenza** = Alta frequenza. Milano. Verlag: Ufficio Centrale dell'Associazione Elettrotecnica Italiana (A. E. I.) Via S. Paolo 10,— Milano.
- Amer. J. Phys.** = American Journal of Physics. Lancaster, Pa. Prince and Lemon Streets, Lancaster, Pennsylvania (USA).
- Amer. J. Roentgenol.** = American Journal of Roentgenology (and Radium Therapy). New York.
- Amer. Mach. N. Y.** = American Machinist. New York. Verlag: McGraw-Hill Publ. Comp. 330 West, 42nd Street, New York 18.
- Amtsbl. Phys. Techn. Bundesanstalt** = Amtsblatt der Physikalisch-Technischen Bundesanstalt, Braunschweig. Verlag: Deutscher Eich-Verlag, Berlin W 30, Motzstr. 5.
- An. Soc. esp. Fis. Quim.** = Anales de la Sociedad espanola de fisica y quimica. Madrid.
- Analyt. Chem.** = Analytical Chemistry. Easton Pa.
- Angew. Chem.** = Angewandte Chemie. Berlin. Verlag: Chemie GmbH. Weinheim/Bergstr. und Berlin.
- Ann. acad. Sci. fennicae** = Annales Academiae Scientiarum Fennicae, Suellmaninketo 9—11, Helsinki.
- Ann. Astrophys.** = Annales d'astrophysique. Paris. Verlag: Service des Publications du Centre National de la Recherche Scientifique, 45 rue d'Ulm, Paris (V^e).
- Ann. franc. Chronom.** = Annales Françaises de Chronometrie. Observatoire National de Besancon.
- Ann. Geoficisa** = Annali di Geofisica. Citta Universitaria, Rom.
- Ann. Géophys.** = Annales de Géophysique. 165 Rue de Sèvres. Paris (XV). Verlag: Service des Publications du C. N. R. S., rue d'Ulm, Paris 5^e.

- Ann. Met. Hamburg.** = Annalen der Meteorologie. (Meteorol. Amt. f. Nordwestdeutschland.) Hamburg.
- Ann. Phys. Lpz.** = Annalen der Physik, Leipzig. Verlag: J. A. Barth, Leipzig C. I, Salomonstr 18b.
- Ann. Phys. Paris.** = Annales de physique. Paris. Verlag: Masson et Cie, 120 Boulevard Saint-Germain, Paris (VI^e).
- Ann. Radioélect.** = Annales de radio-électricité. Paris. Verlag: Groupe de la Compagnie Générale de Télégraphie sans Fil (R. S. F.) 79. Boulevard Haussman, Paris.
- Ann. Rev. Nucl. Sci.** = Annual Review of Nuclear Science. Stanford, California.
- Ann. Rev. Phys. Chem.** = Annual Review of Physical Chemistry, Stanford, California.
- Ann. Télécomm.** = Annales des télécommunications. Paris. Verlag: Centre National d'Etudes des Télécommunications. 24 Rue Bertrand. Paris (VII^e).
- Anz. Oesterr. Akad. Wiss.** = Anzeiger der österreichischen Akademie der Wissenschaften, Mathem.-naturwiss. Klasse. Wien.
- Appl. sci. Res., Hague.** = Applied Scientific Research. A. Mechanics, Heat, B. Electrophysics, Acoustics, Optics. The Hague.
- Appl. Spectr.** = Applied Spectroscopy, Soc. Appl. Spectr., Bound Brook, New Jersey.
- Arbeitsgem. Forsch. Nordrhein Westf.** = Arbeitsgemeinschaft für Forschung des Landes Nordrhein-Westfalen. Verlag: Westdeutscher Verlag, Köln-Opladen.
- Arch. Eisenhüttenw.** = Archiv für das Eisenhüttenwesen. (Stahl und Eisen. Ergänzung). Düsseldorf. Verlag: Stahleisen, Düsseldorf, Schließfach 669.
- Arch. elektr. Übertr.** = Archiv der Elektrischen Übertragung. Wiesbaden Verlag: S. Hirzel, Stuttgart.
- Arch. Elektrotechn.** = Archiv für Elektrotechnik, Springer Verlag, Berlin - Göttingen — Heidelberg.
- Arch. tech. Messen** = Archiv für technisches Messen. München. Verlag: R. Oldenbourg, München, Lotzbeckstr. 2b.
- Archiw. Elekt.** = Archiwum elektrotechniki. Warszawa. Redaktion: Warszawa, Koszykowa 75, Politechnika, Gmach Elektrotechniki, Zakład Elektroniki PAN.
- Arcos Hausmitt.** = Arcos Hausmitteilungen, Arcos Ges. für Schweißtechnik, Aachen, Jülicherstr. 122—134.
- Ark. Astr.** = Arkiv för Astronomi. Kungliga Svenska Vetenskapsakademien, Stockholm 50. Verlag: Almqvist & Wiksells Boktryckeri AB., Stockholm.
- Ark. Fys.** = Arkiv för Fysik. Kungliga Svenska Vetenskapsakademien, Stockholm 50. Verlag: Almqvist u. Wiksells Boktryckeri A. B. Stockholm.
- Ark. Geofys.** = Arkiv för Geofysik. Kungliga Svenska Vetenskapsakademien, Stockholm 50. Almqvist & Wiksells Boktryckeri A.-B., Stockholm.
- Ask. Warte** = Askania Warte, Berlin-Friedenau.
- Astronautica Acta**, Springer Verlag, Wien.
- Astr. J.** = Astronomical Journal. Yale Univ. Office New Haven.
- Astr. Nachr.** = Astronomische Nachrichten Berlin. Verlag: Akademie. Verlag, Berlin W 8, Mohrenstr. 39.
- Astrophys. J.** = Astrophysical Journal. (Univ. of Chicago.) Chicago and New York. Verlag: University of Chicago Press, 5750—58, Ellis Aven., Chicago, Illinois.
- Atomics** = Atomics (London), Leonard Hill Technical Group, Eden House, 9 Eden Street, London N. W.
- Atomic Sci. J. London** = Atomic Scientists Journal. Verlag Taylor & Francis. London.
- Atomkernenergie** = Atomkernenergie, München. Verlag: K. Thiemeig.
- Atompraxis** = Atompraxis Karlsruhe, G. Braun Verlag.
- Atti Accad. Ligure** = Atti della Accademia ligure di scienze e lettere, Genova.

- R. C. Accad. Lincei** = Atti della Accademia Nazionale dei Lincei. Rendiconti. Roma. Verlag: Accademia Nazionale dei Lincei, Tipografia Bardi, Roma; Sallita dei Crescenzi 16.
- Atti Accad. Sci. Torino** = Atti dell'Accademia d. Scienze di Torino, Classe Cci Fische, Matematiche & & Naturali. Turin.
- Atti Soc. Peloritana Sci. Fis. Mat. Nat.** = Atti della Società Peloritana di Scienze Fische.
- Audio Engng.** = Audio Engineering. Radio Magazines, 342 Madison Avenue New York 17. Verlag: Radio Magazines Inc. Madison Ave., New York 17.
- Aust. J. Appl. Phys.** = Australian Journal of Applied Science C. S. I. R. O., East Melbourne C 2.
- Aust. J. Phys.** = Australian Journal of Physics. Melbourne. Verlag: Australian Journal of Scientific and Industrial Research Organization 314 Albert Street East Melbourne, C 2, Victoria.
- BBC Nachr.** = BBC Nachrichten. Hauszeitschrift der Brown, Boveri & Cie A. G., Mannheim.
- Battelle Tech. Rev.** = Battelle Technical Review. Columbus 1, Ohio.
- Beitr. Geophys.** = Gerlands Beiträge zur Geophysik. Leipzig.
- Bell Lab. Rec.** = Bell Laboratories Record. New York.
- Bell Syst. Tech. J.** = Bell System Technical Journal. New York. Verlag: American Telephone and Telegraph Co., 195 Broadway, New York 7.
- Ber. dtsh. keram. Ges.** = Bericht der Deutschen Keramischen Gesellschaft, Berlin.
- Ber. naturf. Ges. Freiburg** = Bericht der Naturforschenden Gesellschaft zu Freiburg i. Br.
- Brennst. Wärmekr.** = Brennstoff-Wärme-kraft. Düsseldorf.
- Brit. J. appl. Phys.** = British Journal of Applied Physics. Inst. of Phys. London.
- Brit. J. Radiol. N. S.** = British Journal of Radiology. London. Verlag: British Institute of Radiology, 32 Welbeck Street, London W 1.
- Brown Boveri Mitt.** = Brown Boveri Mitteilungen. Baden, Schweiz.
- Bull. Amer. phys. Soc.** = Bulletin. American Physical Society. Ithaca.
- Bull. Amer. Soc. Test. Mat.** = Bulletin of the American Society for Testing Materials, Philadelphia.
- Bull. astr. Insts Csl.** = Bulletin of the Astronomical Instituts of Czechoslovakia. Verlag: Akademie d. Wissenschaften, Prag.
- Bull. Cent. Phys. Nucl. Bruxelles** = Bulletin du Centre de Physique Nucléaire de l'Université Libre de Bruxelles. Verlag: 50 Avenue F. D. Roosevelt, Brussels.
- Bull. Earthq. Res. Inst. Tokyo** = Bulletin of the Earthquake Research Institute, Tokyo Imperial University, Tokyo.
- Bull. Electrotechn. Lab. Tokyo** = Bulletin of the Electrotechnical Laboratory. Tokyo. = (Denkisik iho = Denkisikenjo iho. Tokyo.)
- Bull. Fac. Engng. nat. Univ. Yokohama.** Bulletin of Faculty of Engineering Yokohama National University.
- Bull. géod. Int.** = Bulletin Géodésique Internationale. Bureau Central de l'Association Internationale de Géodésie. Verlag: 19 rue Auber, Paris (IX^e).
- Bull. Kobayasi Inst. Phys. Res. Tokyo** = Bulletin of the Kobayasi Institute of Physical Research, Tokyo, Verlag: Kobayasi Inst. of Physical Research, Kokubunzi, Tokyo.
- Bull. Métrol.** = Bulletin de Métrologie Ministère des Affaires Economiques, Bruxelles 4, rue de la Loi 229.
- Bull. schweiz. elektrotech. Ver.** = Bulletin. Schweizerischer Elektrotechnischer Verein, Zürich. Verlag: Selbstverlag Zürich.
- Bull. Soc. chim. Fr.** = Bulletin Société chimique de France. Paris, Masson u. Cie.
- Bull. Soc. franç. Céram.** = Bulletin de la Société française de Céramique. Verlag: Paris XVI, Société française de Céramique, 44 Rue Copernic.

- Bull. Soc. franç. Electriciens** = Bulletin de la Société française des Électriciens. Verlag: Paris (6), Librairie-Imprimerie Gauthier-Villars, 55, Quai des Grands Augustins.
- Bull. Soc. franç. Min. Crist.** = Bulletin de la Société française de Minéralogie et de Cristallographie, Paris, Masson u. Cie.
- Bull. Soc. Suisse Chronom.** = Bulletin annuel de la Société suisse de chronométrie et du Laboratoire suisse de recherches horlogères, Lausanne.
- Cah. Phys.** = Cahiers de physique, Paris, Boulevard Pasteur 3 u. 5.
- Canad. J. Phys.** = Canadian Journal of Physics. Ottawa. Verlag: National Research Council of Canada, Ottawa.
- Canad. J. Technol.** = Canadian Journal of Technology. Ottawa. Verlag: National Research Council of Canada, Ottawa.
- Chalmers tek. Högsk. Handl.** siehe: Trans. Chalmers Univ. Technol.
- Chartered Mech. Engr.** = Chartered Mechanical Engineer. Journal of Institution of Mechanical Engineers, 1 Birdcage Walk, Westminster SW 1.
- Chem. Engng. Progr.** = Chemical Engineering Progress. New York.
- Chem. Ing.-Tech.** = Chemie-Ingenieur-Technik, Berlin. Verlag: Chemie, Weinheim/Bergstr.
- Chem. Ber.** = Chemische Berichte. Chemie-Verlag G. m. b. H., Weinheim, Bergstr.
- Chem. Industr., Düsseldorf** = Chemische Industrie, Düsseldorf. Verlag: Handelsblatt G. m. b. H., Pressehaus, Düsseldorf.
- Circ. U. S. Bur. Stand.** = Circular. United States Bureau of Standards.
- Commun. Kamerlingh Onnes Lab. Leiden** = Communications from the Kamerlingh Onnes Laboratory of the University of Leiden. Leiden.
- Comm. News** = Communication News, N. V. Philips Telecommunicatie Industrie. Hilversum.
- Commun. pure appl. Math.** = Communications on Pure and Applied Mathematics. Interscience Publishers, New York.
- Comp. Automation** = Computers and Automation, Berkeley Enterprises Inc 36 West 11 St. New York 11
- Control Engng, New York.** = Control Engineering, New York, McGraw Hill, New York.
- C. R. Acad. Sci., Paris** = Comptes rendus hebdomadaire des séances de l'Académie des sciences. Paris. Verlag: Gauthier-Villars et Cie. Paris.
- Croat. Chem. Acta** = Croatica chemica acta, (früher: Archiv za Kemiju) Zagreb, 19 Marulice trg.
- Czech. J. Phys.** = Czechoslovak Journal of Physics. Central Institute of Physics, Cukrovarnicka 10, Praha-Stresovice.
- Dechema-Monogr.** = Dechema Monographien. Frankfurt/M. W 13. Verlag: Dechema, Dtsch. Gesellschaft f. chem. Apparatewesen.
- Dtsch. Elektrotechnik, Berl.** = Deutsche Elektrotechnik, Berlin. Verlag: VEB Verlag Technik.
- Dtsch. hydrogr. Z.** = Deutsche hydrographische Zeitschrift. Hamburg.
- Dtsch. Kraftfahrtforsch.** = Deutsche Kraftfahrtforschung, Düsseldorf VDI-Verlag.
- Disc. Faraday Soc.** = Discussions of the Faraday Society. Aberdeen Univ. Press Ltd. 6 Upper Kirkgate Aberdeen.
- Dokl. Akad. Nauk SSSR (N. S.) (russ.)** = Doklady Akademii Nauk SSSR Nowaja Seria. (russ.). Selbstverlag der Akademie Moskau-Leningrad.
- Draht** = Draht. Fachzeitschrift für Draht-Herstellung, -Bearbeitung, -Verarbeitung. Coburg. Verlag: Prost & Meiner-Verlag, Bahnhofstr. 31.
- Elect. Engng, N. Y.** = Electrical Engineering. American Institute of Electrical Engineers, 33 West 39 th Street, New York 18.
- Electron. Engng.** = Electronic Engineering. 28 Essex Street. London W. C. 2.
- Electronics** = Electronics. New York. Mac-Graw-Hill.

- Elektrizitätswirtschaft** = Elektrizitätswirtschaft. (Vereinigung der Elektrizitätswerke.) Göttingen, Maschmühlenweg 8—10.
- Elektronik München** = Elektronik, Francis Verlag München.
- Elektronische Rundschau** = Elektronische Rundschau. Verlag für Radio-Foto-Kinotechnik G. m. b. H., Berlin-Borsigwalde, Eichborndamm 141 bis 167.
- Elektrotech. u. Maschinenb.** = Elektrotechnik und Maschinenbau. Zeitschrift des Elektrotechnischen Vereins Österreich, Springer Verlag, Wien.
- Elektrotech. Z.** = Elektrotechnische Zeitschrift (ETZ). Ausg. A u B. Verlag: Verband Deutscher Elektrotechniker, Wuppertal-Elberfeld, Brillerstr. 99.
- Elektrotechn. Vestn. (jugosl.)** = Elektrotehniski Vestnik, Ljubljana, Elektrotechnische Fakultät.
- Elektrowärme Technik** = Elektro-Verlag, W. Sachon KG., Mindelheim.
- Elettrotecnica** = Elettrotecnica, Milano, Via S. Paolo 10.
- Endeavour** = Endeavour. London. Imperial Chemical Industries Ltd.
- Entw. Ber. Siemens** = Entwicklungsberichte der Siemens-Halske A. G. Berlin-München.
- Erdöl u. Kohle** = Erdöl und Kohle. Industrie-Verlag. Herrnhäusen A. G., Hamburg 11.
- Ergebn. exakt. Naturw.** = Ergebnisse der exakten Naturwissenschaften. Springer-Verlag, Berlin W 35, Reichpietschufer 20.
- Experientia** = Experientia, E. Birkhäuser, Basel 10, Elisabethenstr. 15.
- Exp. Tech. Phys.** = Experimentelle Technik der Physik. Deutscher Verlag der Wissenschaften, Berlin C 2, Oberwasserstr. 11—12.
- Explosivstoffe, Mannh.** = Explosivstoffe Zeitschrift für das Spreng-, Schieß-, Zünd-, Brand- und Gasschutzwesen. Mannheim, W 7, Verlag Erwin Barth.
- Farbe, Berlin.** = Die Farbe, Muster-schmidt Verlag, Göttingen, Berlin, Frankfurt.
- Fingerätetechnik** = Fingerätetechnik, VEB Verlag Technik, Berlin NW 7, Unter den Linden 12.
- Feinw.-Techn.** = Feinwerk-Technik. Verlag: Winter'sche Verlagsbuchhandlung, Füssen/Allgäu, Wachsbleiche 7.
- Fernmeldetech. Z.** = Fernmeldetechnische Zeitschrift. Braunschweig, jetzt Nachrichtentechnische Zeitschrift. Verlag: Fr. Vieweg u. Sohn, Braunschweig.
- Forsch. Fortschr.** = Forschungen und Fortschritte. Akademie-Verlag, Berlin W 8, Akademie-Verlag, Mohrenstr. 39.
- Forsch. Ber. Wirtsch. Verkehrminst. Nordrhein-Westfalen** = Forschungsberichte des Wirtschafts- und Verkehrsministeriums Nordrhein-Westfalen, Köln.
- Forschungsfilm** = Research Film, Institut f. wissensch. Film, Göttingen, Bunsenstr. 10.
- Forsch. H. MAN** = MAN Forschungsheft. Maschinenfabrik Augsburg-Nürnberg. Verlag: E. Kieser K. G., Augsburg.
- Forschungsh. Ver. dtsh. Ing.** = Forschungshefte. Verein deutscher Ingenieure. VDI-Verlag G. m. b. H., Düsseldorf.
- Fortschr. chem. Forsch.** = Fortschritte der chemischen Forschung. Berlin, Göttingen, Heidelberg, Springer-Verlag.
- Fortschr. Phys.** = Fortschritte der Physik. Akademie-Verlag Berlin.
- Fortschr. Röntgenstr.** = Fortschritte auf dem Gebiet der Röntgenstrahlen. Georg Thieme Verlag, Stuttgart-O. Diemershaldenstr. 47.
- Frequenz** = Frequenz. Fachverlag Schiele & Schön, Berlin SO 36, Schröderdamm 13.
- Funktechnik** = Funktechnik. Fernsehen Elektronik. Verlag für Radio-Photo-Kinotechnik, Berlin-Borsigwalde.
- Gas- und Wasserfach** = Gas- und Wasserfach. Verlag: R. Oldenbourg, München.
- Gen. Elect. Rev.** = General Electric Review. Schenectady 5, N. Y.

- General Motors Engng. J.** = General Motors Engineering Journal, Box 177, North End Station, Detroit 2, Michigan.
- Geod. Inst. Medd.** = Geodaetisk Instituts Meddelelser. Kobenhavn.
- Geod. Inst. Skr.** = Geodaetisk Instituts Skrifter. Kobenhavn. Bianco Lunos, Bogtrykkeri A/S.
- Geofis. pur. appl.** = Geofisica pura e applicata. Istituto geofisico italiano Milano.
- Geophysics** = Geophysics. (Society of Petroleum Geophysicists.) Houston, Tex.
- Gerl. Beitr. Geophys.** = Gerlands Beiträge zur Geophysik, Leipzig.
- Glasers Ann.** = Glasers Annalen, Zeitschrift für Eisenbahnwesen und Verkehrstechnik. Georg Siemens Verlagsbuchhandlung, Berlin W. 30, Nollendorfstr., Bielefeld, Am Finkenbach.
- Handb. nat. Bur. Stand.** = Handbook of the National Bureau of Standards, Washington.
- Helv. phys. acta** = Helvetica physica acta. Basel. Verlag: Birkhäuser.
- Hochfrequenztechnik Elektroakustik** = Hochfrequenztechnik und Elektroakustik, Geest u. Portig, Leipzig.
- Hung. Acta Phys.** = Hungarica Acta Physica, Budapest.
- Indian J. Met. Geophys.** = Indian Journal of Meteorology and Geophysics, New Delhi.
- Indian J. Phys.** = Indian Journal of Physics, Calcutta 32, Jadaupur.
- Industr. Diam. Rev.** = Industrial Diamond Review, NAG Press Ltd., 226 Latymer Court, Hammer Smith, London.
- Industrie Elektronik** = Industrie Elektronik, Mitteilg. d. Elektro-Spezial G. m. b. H., Hamburg 1.
- Industr. Engng. Chem.** = Industrial and Engineering Chemistry. Easton, Pa.
- Ingen.-Arch.** = Ingenieur-Archiv. Springer-Verlag, Berlin-Göttingen-Heidelberg.
- Instruments** = Instruments and Automation. Instruments Publishing Company, 921 Ridge Avenue, Pittsburgh 12, Pennsylvania.
- Iswest. Akad. Nauk SSSR Geophys. S. (russ.)** = Iswestija Akademii Nauk SSSR, Geophysikal. Reihe, Moskau.
- Iswest. Akad. Nauk SSSR Phys. S. (russ.)** = Iswestija Akademii Nauk SSSR, Physikal. Reihe, Moskau.
- Jb. Akad. Wiss. Lit. Mainz** = Jahrbuch, Akademie der Wissenschaften und der Literatur, Mainz.
- Jb. dtsh. Ges. Chronom.** = Jahrbuch der Deutschen Gesellschaft für Chronometrie. Stuttgart, Königstraße 1 b.
- Jena. Jb.** = Jenaer Jahrbuch. Wissenschaftliche Veröffentlichungen des Zeisswerks Jena. Kommissionsverlag G. Fischer, Jena.
- J. Acoust. Soc. Amer.** = Journal of the Acoustical Society of America. Menasha, Wis.
- J. Amer. ceram. Soc.** = Journal of the American Ceramic Society. Easton, Pa.
- J. Amer. chem. Soc.** = Journal of the American Chemical Society. Easton, Pa.
- J. Amer. Rocket Soc. (Jet Propulsion)** = Journal of the American Rocket Society. Easton, Pa.
- J. appl. Mech.** = Journal of Applied Mechanics. American Society of Mechanical Engineers, 29 West 39 th Street, New York 18.
- J. Appl. Phys.** = Journal of Applied Physics. American Institute of Physics, 57 East 55 th Street, New York 22.
- J. Appl. Phys., Japan** = Journal of Applied Physics, Japan. Tokyo Univ., Fac. Engng.
- J. atmos. terr. Phys.** = Journal of Atmospheric and Terrestrial Physics. London, Burlington House, W. I.
- J. ceram. Ass. Japan.** = Journal of the Ceramic Association, Japan. Tokyo.
- J. chem. Phys.** = Journal of Chemical Physics. American Institute of Physics, 57 East 55 th Street, New York 22.
- J. chem. Soc.** = Journal of the Chemical Society, London, Burlington House W. I.
- J. Chim. phys.** = Journal de Chimie Physique. Ecole Nationale Supérieure de Chimie, 11 rue Pierre Curie, Paris (V^e).

- J. Colloid Sci.** = Journal of Colloid Science. Academic Press, 125 East 23rd Street, New York 10.
- J. electrochem. Soc.** siehe **Trans. electrochem. Soc.** = Transactions of the Electrochemical Society. New York.
- J. Electronics** = Journal of Electronics. Taylor & Francis Ltd., London.
- J. Fac. Engng. Tokyo** = Journal of the Faculty of Engineering. Tokyo Imperial University. Tokyo.
- J. Franklin Inst.** = Journal of the Franklin Institute. 20th St. and Benjamin Franklin Parkway, Philadelphia 3 Pennsylvania.
- J. geophys. Res.** = Journal of Geophysical Research. Johns Hopkins Press, Baltimore 18, Maryland.
- J. Inst. Met.** = Journal of the Institute of Metals. London.
- J. Inst. Poly., Osaka.** = Journal of the Institute of Polytechnics.
- J. Instn elect. Engrs.** = Journal of the Institution of Electrical Engineers. London.
- J. Iron St. Inst.** = Journal of the Iron and Steel Institute. London.
- J. Madras Univ.** = Journal Madras University, 21 Narasingaparam Street.
- J. Mech. Phys. Solids, Lond.** = Journal of the Mechanics and Physics of Solids. Pergamon Press, 242 Matrylbone Road, London N. W. 1.
- J. Nuclear Energy. London.** = Journal of Nuclear Energy. Pergamon Press, London and New York.
- J. opt. Soc. Amer.** = Journal of the Optical Society of America. American Institute of Physics, 57 East 55th Street, New York 22.
- J. fotogr. Sci.** = The Journal of Photographic Science. The royal Photographic Society of Great Britain 16, Princes Gate, London SW 7.
- J. phys. Chem.** = The Journal of Physical Chemistry. New York.
- J. phys. Soc. Japan.** = Journal of the Physical Society of Japan. Tokyo.
- J. Phys. Radium** = Journal de Physique et le Radium. 10 rue Vauquelin, Paris (V^e).
- J. Polym. Sci.** = Journal of Polymer Science. New York.
- J. Rat. Mech. Anal.** = Journal of rational Mechanics and Analysis. The Graduate Institute for Mathematics and Mechanics, Indiana University, Bloomington, Ind. USA.
- J. Rech.** = Journal des Recherches du Centre National de la Recherche Scientifique. 13 Quai Anatole-France, Paris (VII^e).
- J. Res. nat. Bur. Stand.** = Journal of Research of the National Bureau of Standards. U. S. Government Printing Office Washington 25, D. C.
- J. sci. industr. Res.** = Journal of Scientific and Industrial Research. Old Mill Road, Delhi, 2.
- J. sci. Instrum.** = Journal of Scientific Instruments, Inst. of Phys. London.
- J. sci. Res. Inst., Tokyo** = Journal of the Scientific Research Institute. Tokyo.
- J. Soc. Glass Tech.** = Journal of the Society of Glass Technology Sheffield.
- Kältetech.** = Kältetechnik. Verlag: C. F. Müller.
- Kolloidzshr.** = Kolloidzeitschrift. Verlag: Dr. D. Steinkopff, Darmstadt.
- K. danske Vidensk. Selsk. (Dan. mat. phys. Medd.)** = Kongelige Danske Videnskabernes Selskabs Skrifter. Kjøbenhavn.
- K. tekn. Högs. Handl.** siehe Transactions Royal Inst. Tech. Stockholm.
- Konstruktion** = Konstruktion. Werkstoffe/Versuchswesen im Maschinenbau und Apparatebau. Springer-Verlag, Berlin, Göttingen, Heidelberg.
- Kunststoffe** = Kunststoffe. Carl Hanser, Zeitschriften-Verlag G. m. b. H., München 27.
- Kunststoff-Rdsch.** = Kunststoff-Rundschau, Verlag: Brunke Garrels, Hamburg 26, Borgfelderstr. 83.
- Lichttechnik. Berl.** = Lichttechnik Berlin. Verlag Helios, Berlin-Borsigwalde.
- Mater. Meth.** = Materials and Methods. Reinhold Publishing. Corp. New York.
- Mech. Engng. N. Y.** = Mechanical Engineering. New York 18

- Medd. Lydtekn. Lab. Kbh.** = Meddelelse fra Lydteknisk Laboratorium, Köbenhavn. Akademit for Tekniske Videnskaber. Köbenhavn 10, Oesteroold-jade.
- Med. Meteorolog. Hefte** = Medizinisch-Meteorologische Hefte. Selbstverlag, Met. Amt f. Nordwestdeutschland, Hamburg.
- Mém. Soc. Sci. Liège** = Mémoires de la Société Royale des sciences de Liège Bruxelles. Verlag: Hermann, Paris, Rue de la Sorbonne 6.
- Mesures Contrôle ind.** = Mesures et Contrôle Industriel. Paris. Verlag: Revue Mesures Administration, 79, Avenue des Champs Elysées. Paris.
- Metal Progr.** = Metal Progress. Cleveland 3, Ohio. American Soc. f. Metals, 7301 Enclid. Ave.
- Metall** = Metall. Metallverlag G. m. b. H. Berlin, W 15, Düsseldorf Str. 38.
- Metalloberfläche** = Metalloberfläche. Verlag Carl Hanser, München, Ausg. A. u. B.
- Met. Rdseh.** = Meteorologische Rundschau. Springer-Verlag, Berlin, Göttingen, Heidelberg.
- Microtecnie** = Microtecnie. Lausanne 23, Avenue de la Gare.
- Mikroskopie** = Mikroskopie, Wien.
- Misc. Publ. nat. Bur. Stand.** = Miscellaneous Publications of the National Bureau of Standards. Washington.
- Misure e Regolazioni**, Milano, Viale Piave 20.
- Mitt. Forsch. Inst. Strahlantriebe** = Mitteilungen aus dem Forschungsinstitut für Physik der Strahlantriebe, Stuttgart. Verlag R. Oldenburg, München.
- Mitt. Inst. angew. Math. E. T. H. Zuerich** = Mitteilungen aus dem Institut für angewandte Mathematik an der Eidgenössischen Technischen Hochschule Zürich. Verlag: Birkhäuser, Basel.
- Mitt. Inst. Radiumforsch. Wien** = Mitteilungen aus dem Institut für Radiumforschung. Wien, Springer-Verlag.
- Mitt. Max-Planck-Gesellsch.** = Mitteilungen aus der Max-Planck-Gesellschaft, Göttingen, Bunsenstr. 10.
- Mitt. Max-Planck-Inst. Phys. Stratosphäre** = Mitteilungen aus dem Max-Planck-Institut für Physik der Stratosphäre. Weissenau bei Ravensburg. (Selbstverlag).
- Msehr. Feinmechan. Optik** = Monatschrift für Feinmechanik und Optik. Die Wirtschaft, Berlin W 8, Französische Str. 13/14.
- Mon. Not. R. astr. Soc.** = Monthly Notices of the Royal Astronomical Society. London, Burlington House.
- Nachr. Akad. Wiss. Göttingen** = Nachrichten. Akademie der Wissenschaften in Göttingen. Math.-phys. Klasse. Göttingen. IIA u. IIB. Verlag: Vandenhoeck & Ruprecht, Göttingen.
- Nachrichtentechnik.** VEB-Verlag Technik, Berlin NW 7.
- Nachrichtentechnische Z.** = Nachrichtentechnische Zeitschrift, Verlag Fr. Vieweg u. Sohn, Braunschweig.
- Nature, Lond.** = Nature, London. Verlag: Macmillan and Co.
- Naturwissenschaften** = Die Naturwissenschaften. Berlin. Springer-Verlag, Berlin - Göttingen - Heidelberg.
- Ned. Tijdschr. Natuurk.** = Nederlandse tijdschrift voor natuurkunde. s'Gravenhage. Verlag: Martinus Nijhoff N. V.
- Nobel Hefte** = Nobel Hefte. Sprengmittel in Forschung und Praxis. Essen Dynamit A. G., Troisdorf (Bez. Köln) u. Wasag-Chemie A. G. Essen.
- Noise Control USA**, American Inst. Phys. Acustical Society of America, Lancaster, Pennsylvania.
- Notes appl. Sci. Nat. Phys. Lab.** = Notes on Applied Science. National Physical Laboratory. H. M. Stationary Office, Kingsway, London, W. C. 2.
- Nuclear Engineering** = Nuclear Engineering, London, Temple Press Ltd. Bowling Green Lane.
- Nuclear Physics**, North-Holland Publishing Company, Amsterdam.
- Nucleonics** = Nucleonics. New York, McGraw Hill.
- Nuovo Cim.** Nuovo Cimento. Pisa.
- Observatory** The Observatory. Oxford.

- Occ. Notes R. Astr. Soc.** = Occasional Notes of the Royal Astronomical Society. London, Burlington House.
- Öst. Ing. Arch.** = Österreichisches Ingenieurarchiv. Wien, Springer-Verlag.
- Onde élect.** = Onde électrique, Editions Chiron, 40, rue de Seine, Paris.
- Opt. Acta** = Optica Acta. Paris. Verlag: Société de la Revue d'Optique 3, Paris.
- Optik, Stuttgart** = Optik, Verlag: Wissenschaftliche Verlagsgesellschaft m. m. b. H., Stuttgart.
- Period. math.-phys. astr., Zagreb.** = Glasnik Matematičko-Fizički i Astronomski. Hrvatsko Prirodoslovno Društvo, Zagreb.
- Philips Res. Rep.** = Philips Research Reports, N. V. Philip's Gloeilampenfabrieken, Eindhoven.
- Philips techn. Rdsch.** = Philips technische Rundschau. N. V. Philip's Gloeilampenfabrieken, Eindhoven.
- Phil. Mag.** = Philosophical Magazine. Verlag: Taylor and Francis, Ltd. London.
- Phil. Trans. Roy. Soc. Lond.** = Philosophical Transaction of the Royal Society of London, Ser. A. Verlag: Cambridge Univ. Press, London u. New York.
- Photogr. u. Forsch.** = Photographie und Forschung. Hausmitteilg. d. Zeiss-Ikon A. G., Stuttgart S, Dornhaldenstr. 5.
- Photogr. Korr.** = Photographische Korrespondenz. Verlag: Dr. Othmar Helwich, Darmstadt u. Wien.
- Phototechn. u. -wirtsch.** = Phototechnik und -wirtschaft. Verlag: Radio-Foto-Kinotechnik, Berlin-Borsigwalde.
- Phys. Abh. Sowjetunion** = Physikalische Abhandlungen aus der Sowjetunion. (Früher: Abhandlungen aus d. Sowjet-Physik) Akadem. Verlagsgesellschaft Geest u. Portig, Leipzig.
- Physica** = Physica. The Hague, N. V. Martinus Nyhoff's Boekhandel.
- Phys. Rev.** = Physical Review. Ithaca, N. Y. Lancaster, Pa.
- Phys. To-day** = Physics To-day, (American Institute of Physics.) New York.
- Phys. Bl.** = Physikalische Blätter. Mosbach/Baden, Physik-Verlag.
- P. O. electr. Engrs' J.** = Post Office Electrical Engineers' Journal. London. Dorling and Co., Ltd. Epsom.
- Prikladn. Mat. Meeh.** = Prikladnaja, Matematika j Mekhanika, Akademie der Wissenschaften d. UdSSR, Leningrad.
- Proc. Amer. Acad. Arts Sci.** = Proceedings of the American Academy of Arts and Sciences. Boston.
- Proc. Auto. Div. Instn meeh. Engrs** = Proceedings of the Automobile Division, Institution of Mechanical Engineers. London.
- Proc. Camb. phil. Soc.** = Proceedings of the the Cambridge Philosophical Society, Cambridge, Univ. Press.
- Proc. Indian Acad. Sci.** = Proceedings of the Indian Academy of Sciences, Bangalore.
- Proc. Inst. Radio Engrs, N. Y.** = Proceedings of the Institute of Radio Engineers. New York. 1 East 79 Street.
- Proc. Instn elect. Engrs** = Proceedings of the Institution of Electrical Engineers. London.
- Proc. Instn meeh. Engrs, Lond.** = Proceedings of the Institution of Mechanical Engineers. London, Birdcage-Walk.
- Proc. Instrum. Soc. Amer.** = Proceedings of the Instrument Society of America. Pittsburgh 33, Pa.
- Proc. Int. Comm. Glass. London** = Proceedings of the International Commission on Glass. Butterworths Scientific Publications, London.
- Proc. K. Ned. Akad. Wetensch.** = Proceedings Koninklijke Nederlandsche Akademie van Wetenschappen. North Holland, Publishing Comp. Amsterdam.
- Proc. nat. Acad. Sci. Wash.** = Proceedings of the National Academy of Sciences. Washington. Mack Printing Company, Easton, Pa.
- Proc. nat. Inst. Sci. India** = Proceedings of the National Institute of Sciences of India. Calcutta, Park Street.

- Proc. R. Irish Acad.** = Proceedings of the Royal Irish Academy. Dublin.
- Proc. phys. Soc.** = Proceedings Physical Society, London. Ser. A + B. Taylor and Francis Ltd.
- Proc. roy. Soc.** = Proceedings Royal Society, London, Serie A + B, Cambridge, Univ. Press.
- Proc. Soc. exp. Stress Anal.** = Proceedings. Society for Experimental Stress Analysis. Cambridge. Mass.
- P. V. Com. Int. Poids Mes.** = Procès-Verbaux des séances du Comité international des poids et mesures. Paris. Gauthier-Villars.
- Process Contr. Autom.** = Process Control and Automation, Colliery Guardian Co. Ltd., London.
- Prod. Engng** = Product Engineering. New York, McGraw-Hill.
- Progr. theor. Phys. Kyoto** = Progress of Theoretical Physics, Kyoto. The Physical Society of Japan, Yukawa-Hall, Kyoto, Univ.
- Progressus** = Progressus. Berlin. Fortschritte der Technik. Verlag Handelsblatt G.m.b.H., Düsseldorf, Pressehaus.
- Publ. Oss. geofis. Trieste** = Pubblicazioni dell'Osservatorio geofisico, Trieste.
- Publ. astr. Soc. Japan** = Publications of the Astronomical Society of Japan, Tokyo.
- Publ. astr. Soc. Pacif.** = Publications of the Astronomical Society of the Pacific. San Francisco.
- Quart. J. Mech.** = Quarterly Journal of Mechanics and Applied Mathematics, Oxford.
- R. C. Accad. Lincei** = Atti della Accademia Nazionale dei Lincei. Rendiconti. Roma. Verlag: Accademia Nazionale dei Lincei.
- R. C. A. Review** = R. C. A. Review. (Radio Corporation of America). New York, Princeton, N. Y.
- Radiation Research.** New York, Academic Press Inc., Publishers, New York 10.
- Radio Nachr. Siemens.** = Radio Nachrichten. Hausmitteilungen der Siemens- & Halske A. G., Berlin-Siemensstadt, München, Karlsruhe.
- Radiol. Austr.** = Radiologica Austriaca. (Österr. Röntgengesellschaft Wien.) Verlag: Urban & Schwarzenberg, Wien, Innsbruck.
- Radiology** = Radiology, Syracuse. Verlag: Radiological Soc. of North-America, 713.
- Rec. Acad. Serbe Sci. Inst. Nicolas Tesla** = Recueil des travaux de l'Académie, Serbe des sciences Institut „Nicolas Tesla“, Beograd.
- Regelungstechnik** = Regelungstechnik München. Verlag: R. Oldenbourg, München.
- Rep. Centr. Insp. Inst. Weights Measures** = Report of the Central Inspection Institut of Weights and Measures, Tokyo.
- Rep. Inst. Speed Mech. Sendai** = Report of the Institute for High Speed Mechanics. Tokoku Imperial University. Sendai.
- Rep. Opt. Lab. R. Inst. Techn. Stockholm** = Report (3), The Optics Laboratory, Royal Institute of Technology, Stockholm 70, Schweden.
- Rep. Progr. Phys.** = Report on Progress in Physics, London. Verlag: The Physical Society.
- Research, Lond.** = Research. Science and its Application in Industry. London. Butterworths Scientific Publications Ltd.
- Rev. sci. Instrum.** = Review of Scientific Instruments. Verlag: The American Institute of Physics, New York.
- Rev. mod. Phys.** = Reviews of Modern Physics. Minneapolis.
- Rev. Cienc. apl.** = Revista de ciencia aplicada. Madrid.
- Rev. Fac. Ciênc. Lisboa** = Revista da Faculdade de Ciências. Lisboa.
- Rev. gén. Elect.** = Revue générale de l'électricité. Paris. Verlag: Comité Electrotechnique Français et de l'union Technique de l'électricité.
- Rev. Métall.** = Revue d' métallurgie. (a) Mémoires. (b) Extraits. Paris.

- Rev. Métrol. prat.** = Revue de métrologie pratique, poids et mesures. Paris.
- Rev. Opt. (théor. instrum.)** = Revue d'Optique (théorique et instrumentale), Paris, Boulevard Pasteur.
- Rev. Son Paris.** = Revue du son, Paris. Editions Chiron, 40 rue de Seine.
- Röntgenblätter** = Röntgenblätter. Zeitschr. f. Röntgentechnik u. med.-wissenschaftl. Photographie, Baden-Baden. Verlag: W. Girardet. Essen.
- Röntgen- u. Lab.-Praxis** = Röntgen- und Laboratoriumspraxis. Stuttgart. Verlag: S. Hirzel.
- Rohde u. Schwarz Mitt.** = Rohde & Schwarz Mitteilungen. München 9, Tassiloplatz 7.
- Rozpr. Elektrotechn.** = Rozprawy elektrotechniczne Polska Akad. Nauk, Warszawa.
- S. E. G. Nachr.** = SEG Nachrichten. Standard Elektrizitäts-Gesellschaft-A. G., Stuttgart-Zuffenhausen, Helmut-Hirth-Str. 42
- Schweiz. Arch. angew. Wiss.** = Schweizer Archiv für angewandte Wissenschaft und Technik. Solothurn.
- Science** = Science. Washington 5, 1515, Massachusetts Ave.
- Sci. Industr. fotogr.** = Science et industries photographiques. Paris Boulevard Pasteur 3 et 5.
- Sci. Progr.** = Science Progress, London. Ewald Arnold & Co., 41 Madelox Str.
- Scientia Elect. Zürich.** = Scientia electrica, Zürich. S. Hirzel-Verlag, Zürich.
- Siemens-Z.** = Siemens-Zeitschrift. Berlin-Siemensstadt, München, Erlangen.
- Silikattech.** = Silikattechnik. VEB. Verlag Technik, Berlin NW 7, Unter den Linden 12.
- Shurnal exp. teor. Fis. (russ.)** = Shurnal Experimentalnoi i Teoretitschesskoi Fiziki. Mosskwa. Akademie der Wissenschaften d. UdSSR Moskau u. Leningrad.
- Shurnal Tech. Fis. (russ.)** = Shurnal Technitschesskoi Fiziki, Mosskwa — Leningrad. Verlag: Akademie der Wissenschaften d. UdSSR Moskau und Leningrad.
- S. B. dtsh. Akad. Wiss.** = Sitzungsberichte der Deutschen Akademie der Wissenschaften zu Berlin.
- S. B. Ges. ges. Naturw. Marburg** = Sitzungsberichte der Gesellschaft zur Beförderung der gesamten Naturwissenschaften zu Marburg. N. S. Elwert'sche Verlagsbuchhandlung.
- S. B. Heidelberg. Akad. Wiss.** = Sitzungsberichte der Heidelberger Akademie der Wissenschaften, Springer-Verlag, Heidelberg.
- S. B. öst. Akad. Wiss.** = Sitzungsberichte der Österreichischen Akademie der Wissenschaften. Wien. Math. nat. Kl. Abt. II. Springer-Verlag.
- Sky & Telesc.** = Sky and Telescope. Harvard College Observatory, Cambridge, Mass.
- Soviet Physics JETP** = Soviet Physics JETP, Engl. Übersetzung des Shurnal exp. teor. Fis., Moskau. Amer. Inst. Phys. 57 East Street 55 Street, New York.
- Spectrochim. Acta** = Spectrochimica Acta. London. Pergamon Press Ltd.
- Stahl u. Eisen, Düsseldorf** = Stahl und Eisen, Düsseldorf.
- Staub** = Staub. Deutscher Ing.-Verlag, Düsseldorf.
- Strahlentherapie** = Strahlentherapie. Urban & Schwarzenberg, Berlin W 15, Meinekestr. 13.
- Studium gen.** = Studium generale. Zeitschrift für die Einheit der Wissenschaften. Berlin. Springer-Verlag, Berlin - Göttingen - Heidelberg.
- Suppl. Nuovo Cim.** = Supplemento del Nuovo cimento, Bologna.
- Tech. News Bull. U. S. Bur. Stand.** = Technical News Bulletin. U. S. Bureau of Standards. Washington.
- Technik, Berl.** = Die Technik. Berlin, VEB-Verlag Technik, Unter den Linden 12.
- Techn. Mitt. Haus d. Technik** = Technische Mitteilungen. Organ des Hauses der Technik und technisch-wiss. Kreise, Essen.
- Tech. Mitt. Krupp** = Technische Mitteilungen Krupp. Essen. Postfach 739.

- Tech. Mitt. schweiz. Telegr.- u. Teleph. Verw.** = Technische Mitteilungen der Schweizerischen Telegraphen- und Telephon-Verwaltung. Bern. Speichergasse 6.
- Telefunkenztg.** = Telefunkenzeitung. Mehrfunken G. m. b. H. Berlin, SW 61, Mehringdamm 32—34.
- Trans. Amer. geophys. Un.** = Transactions. American Geophysical Union. Washington. 1515 Massachus. Avenue
- Trans. Amer. Soc. mech. Engrs** = Transaction of the American Society of Mechanical Engineers, New York.
- Trans. Brit. Ceram. Soc.** = Transactions of the British Ceramic Society. Stoke-on-Trent.
- Trans. Chalmers Univ. Technol.** = Chalmers Tekniska Högskolas Handlingar. Göteborg.
- Trans. Faraday Soc.** = Transaction of the Faraday Society. London. Verlag: Gourney and Jackson.
- Trans. Illum. Engng Soc.** = Transaction of the Illuminating Engineering Society. London.
- Trans. Inst. Radio Engrs Prof. Group** = Transaction of the Institute of Radio Engineers Professional Groups. 1 East 79th Street, New York 21.
- Trans. Instr. and Meas. Conf. Stockholm** = Transaction of the Instruments and Measurements Conference, Stockholm. Royal Swedish Academy of Engineering Sciences.
- Trans. Roy. Inst. Technol. Stockholm** = Transactions of the Royal Institute of Technology, (K. tekn. Högsk. Handl.) = Kongliga Tekniska Högskolans Handlingar. Stockholm.
- Uhr** = Die Uhr. (Fachzeitschrift der deutschen Uhrmacher.) Verlag: Karl Fulde, Köln.
- Universitas** = Universitas. Zeitschrift für Wissenschaft, Kunst und Literatur, Stuttgart. Wissenschaftliche Verlagsgesellschaft m. b. H.
- Usp. fis. nauk (russ.)** = Usspechi Fisitschesskich Nauk. Mosskwa, Leningrad. Akademie der Wissenschaften der UdSSR, Moskau-Leningrad.
- Vacuum Lond.** = Vacuum London. W. Edwards and Co. Ltd. Woarsley, Bridge Road.
- Vakuumentchnik. Berlin.** Rudolf A. Lang-Verlag. Berlin-Charlottenburg 4.
- Valvo Ber.** = Valvo Berichte, Valvo G.m.b.H., Hamburg 1.
- Verh. Akad. Wet. Amst.** = Verhandelingen der Konink. Akademie van wetenschappen. Eerste Reeks. Amsterdam. NV Nord-Hollandsche Uitgevers Mij.
- Veröff. Forsch.-Anst. Schiff. Gew. u. Bodenkunde** = Veröffentlichungen der Forschungsanstalt für Schiffbau-, Gewässer und Bodenkunde.
- Veröff. Geodät. Inst. Potsdam** = Veröffentlichungen des geodätischen Instituts Potsdam, Deutsche Akademie der Wissenschaften, Berlin.
- Veröff. Inst. Techn. Phys. Stuttgart** = Veröffentlichungen des Instituts für Technische Physik, Stuttgart.
- Veröff. technol. Gewerbe-Museum, Wien** = Veröffentlichungen aus dem technologischen Gewerbe-Museum, Wien, Währingerstr. 58.
- Vide, Paris.** = La Vide. Technique, applications. Paris 6, Société des Ingénieurs Techniciens du Vide 44 rue de Reimes.
- Vjschr. naturf. Ges. Zürich** = Vierteljahrsschrift der Naturforschenden Gesellschaft in Zürich. Gebr. Fretz A. G. Zürich.
- Weltraumfahrt** = Weltraumfahrt. Zeitschrift f. Astronautik und Raketentechnik. Umschau-Verlag, Frankfurt a. Main.
- Werkst. u. Betr.** = Werkstatt und Betrieb. München. Carl Hauser-Verlag.
- Werkstattstechnik** = Werkstattstechnik und Maschinenbau. Berlin. Düsseldorf. Verlag: Springer und Deutscher Ing.-Verlag.
- Werkst. u. Korrosion, Mannheim** = Werkstoffe und Korrosion. Mannheim. Verlag: Chemie, Weinheim, Bergstr.
- Wireless Engr** = Wireless Engineer, the Journal of Radio Research and Progress. London. Ilife and Sons, Stamford Street.

- Wiss. Abh. Dtsch. Amt Mass u. Gew.** = Wissenschaftliche Abhandlungen des deutschen Amtes für Maß und Gewicht. Berlin C2, Niederwallstr. 18/20.
- Wiss. Z. Hochsch. Elektrotechn. Ilmenau** = Wissenschaftliche Zeitschrift der Hochschule f. Elektrotechnik Ilmenau.
- Wiss. Z. Luther Univ. Halle. Math. Nat. R.** = Wissenschaftliche Zeitschrift der Martin-Luther-Universität, Halle-Wittenberg.
- Wiss. Z. Schiller Univ. Jena. Math. Nat. R.** = Wissenschaftliche Zeitschrift der Friedrich-Schiller-Universität, Jena, Goetheallee 6.
- Wiss. Z. Techn. Hochsch. Dresden** = Wissenschaftliche Zeitschrift der Technischen Hochschule. Dresden.
- Zeiß-Werkz.** = Zeiß-Werkzeitschrift. Oberkochen/Württemberg.
- Z. anal. Chem.** = Fresenius. Zeitschrift für analytische Chemie. Berlin. Springer-Verlag, Berlin - Göttingen - Heidelberg. J. F. Bergmann, München.
- Z. angew. Math. Mech.** = Zeitschrift für angewandte Mathematik und Mechanik. Berlin N 4, Akademie-Verlag, Chausseestr. 106.
- Z. angew. Math. Phys.** = Zeitschrift für angewandte Mathematik und Physik. Basel. Birkhäuser-Verlag.
- Z. angew. Phys.** = Zeitschrift für angewandte Physik. Berlin und München. Springer-Verlag. Berlin W 35, Reichpietschufer 20.
- Z. anorg. Chem.** = Zeitschrift für anorganische und allgemeine Chemie. Leipzig. Verlag: J. A. Barth, Leipzig C 1.
- Z. Astrophys.** = Zeitschrift für Astrophysik. Berlin. Springer-Verlag.
- Z. Elektrochem.** = Zeitschrift für Elektrochemie (u. angewandte physikalische Chemie). Berlin. Verlag: Chemie G. m. b. H., Weinheim/Bergstr.
- Z. Geophysik** = Zeitschrift für Geophysik. Würzburg, Physika-Verlag, Rudolf Liebig A. G., Rotlöwengasse 2.
- Z. Kristallogr.** = Zeitschrift für Kristallographie, Frankfurt/Main., Akademische Verlagsgesellschaft.
- Z. Metallk.** = Zeitschrift für Metallkunde. Stuttgart. Dr. Riederer-Verlag G. m. b. H.
- Z. Met.** = Zeitschrift für Meteorologie. Berlin. Akademie-Verlag G. m. b. H.
- Z. Naturf.** = Zeitschrift für Naturforschung. Wiesbaden, Tübingen, Mathildenstr. 29.
- Z. Phonetik** = Zeitschrift für Phonetik und allgemeine Sprachwissenschaft. Akademie-Verlag, Berlin.
- Z. Phys.** = Zeitschrift für Physik. Berlin und Heidelberg. Springer-Verlag.
- Z. phys. Chem. N. F.** = Zeitschrift für physikalische Chemie. Neue Folge. Akademische Verlagsgesellschaft m. b. H., Frankfurt/M., Holbeinstr. 25-27.
- Z. phys. Chem.** = Zeitschrift für physikalische Chemie. Akademische Verlagsgesellschaft Geest & Portig K. G., Leipzig.
- Z. Ver. dtsh. Ing.** = Zeitschrift des Vereins Deutscher Ingenieure. Düsseldorf. Deutscher Ing.-Verlag.
- Z. wiss. Mikr.** = Zeitschrift für wissenschaftliche Mikroskopie und mikroskopische Technik. Stuttgart. Verlag: S. Hirzel.
- Z. wiss. Photogr.** = Zeitschrift für wissenschaftliche Photographie, Photo-physik und Photochemie. Leipzig. Verlag: Joh. Ambrosius Barth.

„Stoffgliederung der Physikalischen Berichte“

1. Allgemeines

1. <i>Allgemeines</i> (Stellung und Abgrenzung der Physik, Sprachgebrauch u. ä.).	53:0
2. <i>Lehrbücher, Tabellenwerke, Monographien.</i>	53 (075)
3. <i>Biographisches und Geschichtliches.</i>	53 (092); 53 (091)
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12. *Kristalle* (Strukturbestimmung, Kristallographie, Kristallbau, Kristallwachstum, Gitterstörungen, Absorptionsspektren von Kristallen, Makrostruktur, Diffusion, Amorphe Körper). 539:548
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A

- Aach, H. G.* Ähnlichkeiten der Lichtwirkung auf grüne Pflanzen und auf das tierische Auge. 1694.
- Aamodt, L. C. and Fletcher, P. C.* Magnetic moment and mass of chlorine-36. 2458.
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- Aarset, B. Cloud, R. W. and Trump, J. G.* Electron emission from metals under high-energy hydrogen ion bombardment. 1591.
- Abbad, M. s. Villalon, J. Montes.* 896.
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- Abe, Hidetaro s. Kumagai, Hiroo.* 2460.
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- Abelès, Jean.* Vitesse, grandeur qualitative, et mécanique relativiste. 1922.
- Abeles, B and Meiboom, S.* Galvanomagnetic effects in bismuth. 1647.
- Abelès, F.* Résistivité et pouvoir thermo-électrique des métaux présentant des lacunes. 1852.
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- *Emploi des couches minces en interférométrie.* 2193.
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- , *M. and Goldsack, S. J.* Pi meson production in lead and carbon. 1759.
- Abrahams, S. C. and Blackmore, W. R.* Shielding device for X-ray diffraction cameras. 791.
- and *Kalnajs, J.* Lattice constants of the alkali borohydrides and the low-temperature phase of sodium borohydride. 795.
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- Abramson, B. N. Brandwein, D. S. and Menes, H. C.* 350,000-pound thrust rocket test stand at Lake Denmark, N. J. 1507.
- Abrikosov, A. s. Landau, L. D.* 1927.
- Accardi, Luigi.* Apparecchio per la registrazione del campo elettrico atmosferico. 525.
- Accardo, Carl A. s. Kronenberg, Stanley.* 2538.
- Accary, André.* Diffusion intermétallique dans les laitons. 1628.
- Acharya, Y. V. G.* Momentum transfer and heat diffusion in the mixing of coaxial turbulent jets. 917.
- *Momentum tranfer theory applied to a turbulent jet spreading in still air.* 1310.
- Achon, Marco Antonio s. Kern, Werner.* 1835.
- Acquista, N. s. Mann, D. E.* 1815.
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- Acelz, J.* Solution of some problems of K. Borsuk and Jánosy. 2261.
- Adair, Robert K.* Resonances in Li^7 (p, n) Be^7 . 63.
- *Angular distribution of Λ^c and 0° decays.* 1998.

- Ádám, A. Jánossy, L. and Varga, P. Coincidences between photons contained in coherent light rays. 853.
- Adams, A. jr. s. *Statz, H.* 1434, 1653.
- Adams, E. H. s. *Hearmon, R. F. S.* 13.
- Adams, E. N. Elastoresistance in p-type Ge and Si. 128.
- Plasma oscillations in metals. 1020.
- Auxiliary conditions in the Bohm-Pines theory of the electron gas. 1719.
- , J. B. Hine, M. G. N. and Lawson, J. D. Effect of magnet inhomogeneities in the strong-focusing synchrotron. 1986.
- , Kenneth, B. and Burns, Kevin. Vacuum interferometer and cadmium oven. 1678.
- Adams, jr. N. I. s. *Kovarik, A. F.* 403.
- , Samuel s. *Lawson, Hampden C.* 1077.
- Addink, N. W. H. mit *Dikhoff, J. A. M.* *Schipper, C.* *Witmer, A.* and *Groot, T.* Quantitative spektrochemische Analyse mittels des Gleichstrom-Kohlebogens. 496.
- Adelsberger, U. s. *Scheibe, A.* 2272.
- Adem, Julián and *Moshinsky, Marcos.* Matrix boundary value problems. 380.
- Ader, Marie. Étude des sources de thorium C et de thorium C'. 2339.
- Adey, Albert W. Scattering of electromagnetic waves by coaxial cylinders. 677.
- Diffraction of microwaves by long metal cylinders. 1448.
- Adirowitsch, E. I. Elektronenzustände in einer gestörten Kristallstruktur. 1892.
- Strahlungslose Elektronen. Übergänge in einer gestörten Kristallstruktur. 1892.
- Bändertheorie der Kristalle und die Erscheinung des kalten Aufleuchtens. 1892.
- Adkins, J. E. Finite deformation of materials exhibiting curvilinear aeolotropy. 911.
- , R. and Brennan, J. G. Intermediate coupling in odd-odd nuclei. 1530.
- Adler, E. Koerzitivkraft und Teilchengröße bei feinen ferromagnetischen Pulvern. 1017.
- , I. and Axelrod, J. M. Internal standards in fluorescent X-ray spectroscopy. 502.
- , R. Kromhout, O. M. and Clavier, P. A. Resonant behavior of electron beams in periodically focused tubes for transverse signal fields. 852.
- Adlington, R. H. s. *Brannen, Eric.* 156, 1809.
- Adloff, Jean-Pierre s. *Perey, Mlle Marguerite.* 765.
- Aebersold Paul C. Radioisotopes as sources of gamma trays for therapy. 2556.
- Agant, Y. s. *Grivet, P.* 1917.
- Agar, A. W. and *Revell, R. S. M.* Formvar replica process. 806.
- , — Shape and resolution of formvar replica films. 1889.
- Agarwal, Bipin Kumar. Pressure of the absorbing gas for potassium X-ray absorption rise. 318.
- Agashe, V. V. s. *Dixit, K. R.* 133, 1114.
- Agdur, B. s. *Rydbeck, O. E. H.* 1193.
- Aggarwal, Ram Ratan. Intensity expressions for the diffraction of light by an amplitude modulated ultrasonic beam. 379.
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- Internal ballistics for composite charge. 1732.
- Ballistics of composite charges for power law of burning taking account of different gammas. 1732.
- Internal ballistics of H/L gun using propellant of any shape. 1732.
- Internal ballistics of leaking guns. 1953.
- Internal ballistics for power law of burning with most general form function. 1953.
- Aggson, T. L., *Fretter, W. B.*, *Friesen, E. W.*, *Hansen, L. F.*, *Kepler, R. G.* and *Lagarigue, A.* Decay in flight of a negative and a positive τ meson. 2353.
- Agostinelli, Cataldo. Soluzioni stazionarie delle equazioni della magnetoidrodinamica interessanti la Cosmogonia. 1019.
- Aguilar, M. y Yunta, J. Agrupación de receptores en la retina. 340.
- , — Agrupación de receptores en la retina. 698.
- , Oliva, J. y Plaza Ana. Interpretación teórica de la curva área del test umbral absoluto. 172.
- , —, — Interpretación teórica de la curva área del test umbral absoluto. 2554.

- Aguilar M., Oliva J. y Yunta, J.* Contraste umbral y luminancia según la teoría de las agrupaciones sensoriales. 341.
- , —, — Contraste umbral y luminancia según la teoría de las agrupaciones sensoriales. 2554.
- , *Solis, M. y Yunta, J.* Constancia del área del estímulo en la determinación del mínimo perceptible. 341.
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- Agy, Vaughn.* Location of the auroral absorption zone. 522.
- Geographic and thermal distribution of polar blackouts. 848.
- Ionospheric effects produced by solar flare radiation. 2248.
- Ahearn, A. J.* Ultraviolet transmission and alpha bombardment conduction inhomogeneities in diamond. 1037.
- Ahmed, F. R. and Cruickshank, D. W. J.* A refinement of the crystal and molecular structures of naphthalene and anthracene. 1006.
- Ahnlund, Katarina.* Magnetic analysis of the $O^{17}(d, p) O^{18}$ reaction. 412.
- Proton groups from deuteron bombardment of Ne^{20} by magnetic analysis. Transitions to the ground state and first excited state of Ne^{21} . 1774.
- Reaction energy of $Ne^{22}(d, p) Ne^{23}$ and the atomic mass of Ne^{23} . 1774.
- Proton groups from deuteron bombardment of Ne^{20} by magnetic analysis. II. 2363.
- s. *Mileikowsky, Curt.* 412.
- Ahrens, T.* Matrix element relations in beta decay theory and nuclear forces. 2032.
- s. *Miller, M. M.* 2032.
- Aigrain, P.* Theory of impurity bands with randomly distributed centers. 285.
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- Aikin, A. W.* Measurements in travelling-wave structures. Use of resonant-cavity and perturbation methods. 1664.
- Neutron production by electrons in uranium and uranium-beryllium. 2368.
- Ainsworth, L.* Single crystal bismuth telluride. 2476.
- Aitchison, R. E.* Circuit for balancing the characteristics of pairs of valves. 1673.
- Aitken, K. L. s. Palmer, G. H.* 1981.
- Aiya, S. V. Chandrasekhar and Phadke, K. R.* Atmospheric noise interference to broadcasting in the 3-Mc/s band at Poona. 2177.
- Ajzenberg, Fay and Franzen, Wolfgang.* Neutrons from the proton bombardment of B^{10} . 413.
- and *Lauritsen, T.* Energy levels of light nuclei. V. 771.
- , *Rubin, A. and Likely, J. G.* Neutrons from the proton bombardment of S^{32} and S^{34} . 1795.
- , —, *Johnson, G. D. and Mazari, M.* Neutrons from the proton bombardment of B^{11} . 1795.
- Aked, A., Bruce, F. M. and Tedford, D. J.* Timelag data for spark discharges in uniform field gaps. 669.
- Akehurst, C. s. Roman, W.* 218.
- Akeley, Edward S.* Determination of the magnetic field strength H and its vector potential A in terms of the magnetic field strength H_0 on a plane surface, with application to the spiral ridged FFAG accelerator. 1987.
- Akers, Laurence K. and Jones, Ernest A.* Vibrational spectra, structure, force constants and thermodynamic properties of arsenic pentafluoride. 623.
- Akima, Tetsuo.* Torsion pendulum low-pass filter applied to the study of earthquake waves. 353.
- Mechanical low-pass filter for seismogram analyses. 2564.
- Dispersion curves of surface waves from the great Assam earthquake of September 15, 1950. 2566.
- Akimoto, S. s. Nagata, T.* 2240, 2570.
- , *Syun-iti.* Thermo-magnetic study of ferromagnetic minerals contained in igneous rocks. 2241.
- Akriche, J.* Persistance de la vibration et de la rotation dans le spectre d'émission de la molécule C_2 . 2413.
- Alaga, G.* Selection rules in β decay of strongly deformed nuclei. 1578.
- , *Kofoed-Hansen, O. and Winther, A.* Pseudoscalar interaction in β -decay. 1368.
- Alba, F. s. Bonner, T. W.* 421.
- s. *Mazari, M.* 2037.
- Albagli, S.* Influence des pertes dans les lignes H. F. 303.

- Albers-Shoenberg, Ernst s. Brown, David R.* 184.
- Albers-Schönberg, Heinz und Heer, Ernst.* Richtungskorrelationsmessungen in supraleitenden Metallen. 285.
- Albert, L.* Einfluß diskreter Energieverluste der Elektronen auf die Struktur der Bremsstrahl-Isochromaten. 1393.
- Alberty, Robert A.* Variation of the sedimentation coefficient with time during a single velocity ultracentrifuge experiment. 2077.
- Albrecht, F.* Impulsaktinometer. 2249.
- , *H. O. and Mandeville, C. E.* Luminescence of beryllium oxide. 1071.
- Albrecht, H. O. s. Mandeville, C. E.* 500, 863, 1825.
- Albrecht, R.* Potential in doppelt gekrümmten Kondensatoren. 1845.
- Albritton, B. R. jr. s. Mobley, R. C.* 486.
- Alburger, D. E. and Sunyar, A. W.* Decay of Bi^{207} . 592.
- , — Decay of Bi^{207} . 1555.
- *s. Toppel, B. J.* 1364, 1366.
- *s. Wilkinson, D. H.* 1571.
- Alder, B. J., Haycock, E. W., Hildebrand, J. H. and Watts, H.* PVT relations of liquid carbon tetrachloride and n-perfluoroheptane and a test of the Clausius-Mosotti equation. 1111.
- , *Kurt and Winther, Aage.* Matrix elements between states in the Coulomb field. 717.
- , — Exact evaluation of the Coulomb excitation. 1299.
- Alldrich, L. T. s. Wetherill, G. W.* 1750.
- , *R. s. Marvin. Robert S.* 2440.
- Alei, E. F. s. Hoffmann, F. de* 90.
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- Alletti, R. s. Piontelli, R.* 2146.
- Alexander, B. H. s. Levitas, A.* 650.
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- *s. Many, A.* 1652.
- *s. Steinberger, I. T.* 1891.
- , *G., Bullario, C., Bizarri, R., Brunelli, B., Marco, A. de, Michelini, A., Moneti, G. C., Zavattini, E., Zichichi, A. and Astbury, J. P.* Cloud chamber observation of a singly charged unstable fragment. 561.
- , *James D. and Bowers Wayne A.* Effect of inclusion of exchange in the Thomas-Fermi treatment of molecules. 540.
- , *J. T. and Nastuk, W. L.* Instrument for the production of microelectrodes used in electrophysiological studies. 2221.
- , *Karl F.* Theorie der Thermodiffusion in Flüssigkeiten. I. Zusammenhang zwischen kinetischer und phänomenologischer Theorie der Transporterscheinungen in kontinuierlichen Systemen. 2428.
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- , *Leroy.* Synthesis of X-ray spectrometer line profiles with application to crystallite size measurements. 790.
- , *P. and Fox, M.* Degradation of polymethacrylic acid by X-rays. 2081.
- and *Stacey, K. A.* Lightscattering and non-Newtonian viscosity of high molecular weight polymethacrylic acid. 1199.
- , *Black, R. M. and Charlesby, A.* Radiation induced changes in the structure of polyisobutylene. 803.
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- Alexeff, I. s. Jennings, B.* 959.
- and *Peterson, Edward C.* Evaporation pump behavior with noble gases. 1097.
- *s. Bina, Melvin J.* 906.
- Alexejewskij, N. E., Shdanow, G. Ss. und Shurawlew, N. N.* Supraleitfähigkeit der Verbindungen Bi_4Rh und Bi_2Rh . 285.
- Alford, W. Parker and Hamilton, Donald R.* Recoil spectrum in the beta decay of Ne^{19} . 1345.
- Alfrey, G. F. and Taylor, J. B.* Electroluminescence in single crystals of zinc sulphide. 328.
- , *Turner jr., Berg, Paul W. and Morawetz, Herbert.* Counterion distribution in solutions of rod-shaped polyelectrolytes. 2082.

- Alfrey G. F., Bradford, E. B., Vanderhoff, J. W. and Oster, Gerald. Optical properties of uniform particle-size latexes. 1682.
- Alger, R. S. and Jordan, R. D. Energy requirement for F-center formation. 1407.
- s. Anderson, T. H. 2207.
- Alfvén, H. Line currents in cosmic physics. 817.
- Alger, R. S. and Jordan, R. D. F centers in pure and hydride-containing alkali halide crystals. 446.
- Alkemade, C. T. J. and Milatz, J. M. W. Doublebeam method of spectral selection with flames. 2525.
- Allan, A. H. Variations of received frequency of WWVH. 677.
- and McCree, K. J. Integrating meters for comparing light intensities in plant growth studies. 696.
- , D. L. Energy distribution of protons from the reaction $\text{Cu}(n, p)\text{Ni}$ at 14 MeV. 404.
- Inelastic scattering of 14-MeV. neutrons by lithium — 7. 2392.
- , H. R., Govindjee, M. and Sarma, N. Excitation curve for the reaction $^{10}\text{B}(p, \alpha)^7\text{Be}$. 2035.
- Allard, G. s. Langevin, M. 226.
- Albright, C. S. s. Dinneen, G. U. 726.
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- Allen, P. A. s. Phillips, B. B. 1701.
- Allen, D. N. G. de and Dennis, S. C. R. Application of relaxation methods to the solution of differential equations in three dimensions. I. Boundary value potential problems. 895.
- and Sopwith, D. G. Stresses and strains in a partly plastic thick tube under internal pressure and end-load. 1727.
- , F. G. s. Bills, D. G. 368, 1097.
- , G., Webeler, R. and Barile, S. Multiple scattering of low-energy alpha particles in a gas. 1795.
- s. Barile, S. 415.
- , Harry C. jr. and Plyler, Earle K. Infrared spectrum of hydrogen sulfide in the $6,290\text{-cm}^{-1}$ region. 253.
- Infrared spectrum of hydrogen sulfide. II. 5100-cm^{-1} region. 1815.
- , J. A. van. Soft radiation observed at high altitudes in northern latitudes. 249.
- Allen J. A. van s. Meredith, L. H. 522.
- , J. S. s. Maxson, D. R. 944.
- , J. W. s. Mackintosh, I. M. 1018.
- , K. R., Lipsicas, M. M., Major, D. and Phillips, K. Scattering of fast charged particles. I. Single scattering of 13.5 MeV electrons in xenon. 1170.
- , K. W., Almquist, E. and Bigham, C. B. Energy levels of the isobars $\text{Li}^6\text{-He}^6$. 1364.
- , —, Dewan, J. T. and Pepper, T. P. Disintegration of Li^6 and Li^7 by 0.24-MeV tritons. 403.
- s. Bigham, C. B. 1364.
- , L. C. Energy bands in solids. 1095.
- Interpolation scheme for energy bands in solids. 902.
- , L. J. s. Blackwell, J. H. 1922.
- , N. P. Hopkins, B. E. and McLennan, J. E. Tensile properties of single crystals of high-purity iron at temperatures from 100 to -253°C . 913.
- , R. A. Burcham, W. E. Chackett, K. F., Munday, G. L. and Reasbeck, P. Electron capture in the decay of sodium 22. 77.
- , R. B. and Farnsworth, H. E. Effect of ion-bombardment cleaning of germanium on point contact rectification. 2120.
- , R. C. s. Czyzak, S. J. 668.
- , s. Thomas, R. G. 2391.
- , R. G., Stephenson, T. E., Stanford, C. P. and Bernstein, Seymour. Slow neutron cross sections of gold, silver, indium, nickel and nickel oxide. 419.
- , T. K. Spectroscopic study of plasma-electron oscillations. 1443.
- , Bailey, R. A. and Emeleus, K. G. Appearance of some oscillating discharges. 670.
- s. Emeleus, K. G. 1234.
- , William, A. s. Mayfield, Earle, B. 1732.
- , W. D. and Ferguson, A. T. G. Elastic scattering of 80 keV neutrons. 421.
- , — n-p cross section in the range $60\text{-}550\text{ keV}$. 981.
- , Dawton, R. H. Lock, J. M. Pippard, A. B., Shoenberg, D., Bär, Marianne, Mendelssohn K., and Olsen, J. L. Superconductivity of tin isotopes. 2113.
- Allin, Elizabeth J., Hare, W. F. J. and MacDonald, R. E. Infrared absorption of liquid and solid hydrogen. 1826.
- , — Welsh, H. L.

- Allin, Elizabeth J., Hare, W. F. J. and Welsh, H. L.* Infrared absorption of liquid and solid hydrogen and its dependence on the orthopara ratio. 636.
- , *s. Hare, W. F.* 1826.
- Allis, W. P. s. Dreicer, H.* 1048.
- Allison, B. s. Fabricand, B. P.* 1354.
- , *B. A. s. Faust, W. R.* 1122.
- , *s. Scherrer, V. E.* 597, 772.
- , *F. E. and Pugh, Emerson M.* Hall and Nernst effects in ferromagnetic materials. 646.
- , *s. Pugh, Emerson M.* 646.
- , *M. Moore, R. W. Richardson, A. E. Peterson, D. T. and Voigt A. F.* Determining mesothorium content of thorium nitrate. 2362.
- , *Samuel K. s. Anderson, H. L.* 894.
- Alfred, Charles M.* Chart for the TE₁₁ mode piston attenuator. 1668.
- Almond, Mary s. Clegg, J. A.* 2238.
- Almqvist, E. Clarke, R. L. and Paul, E. B.* (p, a) reactions in Cl and K. 1774.
- , *s. Allen, K. W.* 403 1364.
- , *s. Bigham, C. B.* 1364.
- Alon, Iadine Arsac Jacques et Jean Alon, Iadine, Arsac, Jacques et Steinberg, Jean-Louis.* Distribution de la brillance radioélectrique sur le soleil à la fréquence de 9350 Mc/s. 2231.
- Alperovitch, Edward A. and Miller, J. M.* Occurrence of technetium-98 in nature. 955.
- , and *Miller, J. Malcolm.* Occurrence of technetium-98 in nature. 1546.
- Alston, Margaret H. Crewe, A. V. and Evans, W. H.* Aspects of diffusion cloud chamber operation. 386.
- Altenpohl, Dietrich.* Diskontinuierliche Erstarrungsvorgänge beim Stranggießen von Raffinal oder Reinaluminium. 2549.
- Altman, David s. Gilbert, Mitchell.* 1944.
- , *L. Bridge, H. S. and Williams, R. W.* High-energy nucleonic component in the atmosphere. 249.
- Altmann, S. L.* Self-consistent field for Zr⁴⁺. 619.
- , and *Cohan, N. V.* Screening constants in the hydrogen molecule. 1609.
- Altlicher, O. und Schäfer, Gerda.* Herleitung der Gullstrandschen Grundgleichungen für schiefe Strahlenbüschel aus den Hauptkrümmungen der Wellenfläche. 2530.
- Altroy, F. d' and Fan, H. Y.* Polarization of impurities in germanium. 1434.
- , — Effective mass of carriers and relaxation time in germanium. 2126.
- Altshuler, S.* Ingoing waves in the final state of ionization problems. 1613.
- , *Saul.* Applications of variational principles to scattering problems. 1606.
- Altschuller, Aubrey P.* Dielectric constants, polarizations and dipole moments of some alkylbenzenes. 841.
- Shapes of particles from dielectric constant studies of suspensions. 2098.
- Alvarez, Luis W. Crawford jr. Frank S. and Stevenson, M. Lynn.* Elastic scattering of 1.6-Mev gamma rays from carbon. 1604.
- , — *Good, Myron L. and Stevenson, M. Lynn.* Lifetime of K mesons. 1521.
- and *Goldhaber, S.* Lifetime of the τ -meson. 393.
- Alvial, G. s. Davies, J. H.* 763.
- Amaldi, E., Cortini, G. and Manfredini, A.* K-meson investigation. 2352.
- *Anderson, C. D., Blackett, P. M. S., Fretter, W. B., Leprince-Ringuet, L., Peters, B., Powell, C. F., Rochester, G. D., Rossi, B. and Thompson, R. W.* Symbols for fundamental particles. 235.
- Amaldi, E. s. Chamberlain, O.* 2003.
- Amati, D. and Vitale, B.* Pion annihilation of nucleon-antiproton pairs. 2024.
- Ambard, Léon s. Trautmann, Mlle Simone* 1864.
- Ambler, E. Hudson, R. P. and Temmer, G. M.* Anisotropic gamma radiation from aligned Nd¹⁴⁷ nuclei. 569.
- , —, — Alignment of three odd-Ar rare-earth nuclei. 2359.
- *Grace, M. A. Halban, H. Kurti, N. Durand, H. Johnson, C. E. and Lemmer, H. R.* Nuclear polarization of cobalt 60. 2008.
- Ambolt, N. s. Egedal, J.* 1910.
- Ambrose, D.* Standard samples of organic substances for physico-chemical measurements. 11.
- and *Bigg, P. H.* Correction of millimetre mercury barometers. 1915.
- and *Collerson, R. R.* Thermal conductivity gauge for use in gas-liquid partition chromatography. 747.
- Ambrosetti, Fl. und Thams, J. C.* Grösse der Globalstrahlung verschieden orientierter Flächen. 1704.

- Amdur, I.* and *Harkness, A. L.* Scattering of high-velocity neutral particles. II. Helium-helium. 94.
- *Mason, E. A.* and *Harkness, A. L.* Scattering of high-velocity neutral particles. IV. He-A; A-He. 992.
- *Ross, J.* and *Mason, E. A.* Intermolecular potentials for the systems $\text{CO}_2\text{-CO}_2$ and $\text{CO}_2\text{-N}_2\text{O}$. 2414.
- Amelinckx, S.* Growth spirals on crystals of long chain compounds. 2421.
- Amemiya, Ayao* s. *Kotani, Masao*. 2271.
- Ames Adelbert jr.* †. 894.
- Ames, I. Sack, H. S.* and *Wood, R. M.* Dielectric dispersion in zinc sulfide phosphors. 1265.
- Amin, M. R.* Fast time analysis of intermittent point-to-plane corona in air. III. Negative point Trichel pulse corona. 1045.
- Amman, F.* and *Dadda, L.* Design of the pole faces for circular particle accelerators with the electrolytic tank. 1125.
- Ammiraju, P.* *Rinehart, M.* *Rogers, K. C.* and *Lederman, L. M.* Absorption of pions in carbon and nitrogen. 1386.
- Amorós, J. L.* *Codina, J. M.* y *Serra, J. M.* Focalización de rayos X con muestra plana. 629.
- Amphlett, C. B.* and *Williams, T. F.* Cell for kinetic measurements of gas evolution from systems irradiated by fast electron beams. 1180.
- Amprino, R.* Distribution of S^{35} -sodium sulfate in early chick embryos. 1077.
- Incorporation of radiosulfate in the cartilage. 1077.
- Amsel, Otto* und *Wittwer, Gerhard*. Nullmethode zur Messung niedriger Dampfdrucke. 1113.
- Anciaux, H.* s. *Ruyssen, R.* 1273.
- Andermann, Geo* s. *Kemp, J. W.* 501.
- Anders, Oswald U.* Millicurie β -ray point source. 1781.
- Andersen, Einar.* Practical formulas for accurate calculation by relative long distances of geographical coordinates or distances and azimuths on the international ellipsoid of rotation. Accuracy is ± 1 millimeter and equivalent by distances of something more than 1000 kilometers. 2564.
- , *Flemming, Andersen, John Rastrup, Bak, Borge.* *Bastiansen, Otto.* *Risberg, Eilif* and *Smedvik, Lise.* Electron diffraction and microwave investigation of tertiary butyl fluoride. 431.
- Andersen, Flemming* and *F. Allan* s. *Bak, Borge*. 1816.
- , *John Rastrups.* *Andersen, Flemming* 431
- Anderson, A. s.* *O'Rourke, R. C.* 1802.
- , *A. B. C.* Dependence of the discrete acoustic frequencies emitted by a jet on vortex-ring coalescence at Reynolds numbers up to 7000. 1731.
- , *Arthur, R.* and *Johns, Frank R.* Characteristics of free supersonic jets exhausting into quiescent air. 1950.
- , *C. D.* s. *Amaldi, E.* 235.
- s. *Sorrels, J. D.* 1997.
- , *C. N.* Sunspot cycle. 878.
- , *D. V.* *Ayers, J. C.* *Chandler, D. C.* and *Lauff, G. H.* Currents and water masses in Lake Huron. 711.
- , *E. C.* s. *Van Dilla, M. A.* 2342.
- , *Ernest C. s.* *Freedman, Arthur J.* 1975.
- , *F. Lawlor, G.* and *Nevin, T. Y.* Unusual decay of a χ -meson. 562.
- , —, — Mesonic decay of a singly charged fragment. 937.
- , *s. Davies, J. H.* 763.
- , *H. L.* and *Allison, Samuel K.* Professor Fermi's notebooks. 894.
- and *Glicksman, M.* Scattering of pions by hydrogen at 165 Mev. 1602.
- *Davidon, W. C.* *Glicksman, M.* and *Kruse, U. E.* Scattering of positive pions by hydrogen at 189 Mev. 1602.
- *s. Glicksman, M.* 982.
- s. *Kruse, U.* 1386.
- , *Herbert L.* Meson experiments with Enrico Fermi. 937.
- , *J. D.* *Kenney, R. W.* and *McDonald, C. A.* Yield of π^0 photomesons as a function of atomic number. 1759.
- , *John D. Kenney, Robert W.* and *McDonald jr.* *Charles A.* Angular distribution of bremsstrahlung photons. 559.
- *John H.* and *Hutchison jr.* *Clyde A.* Paramagnetic resonance absorption in praseodymium trichloride. 122.
- , *J. L. s.* *Takano, Y.* 363.
- , *James L.* Functional integration and S-matrix theory. 363.
- , *J. M.* and *Goldstein L.* Interaction of electromagnetic waves of radio-frequency in isothermal plasmas: collision cross section of helium atoms and ions for electrons. 1235.
- , — Microwave studies of slow electron collision processes in helium plasmas. 837.

- Anderson, J. M. s. Goldstein J. 837.
 —, J. R. s. Merz, W. J. 2263.
 —, Leigh C. s. Harmer, David E. 614.
 —, N. G. and Dawson, I. M. Study of crystal growth with the electron microscope. III. Growth-step patterns and the relationship of growth-step height to molecular structure in n-nonatriacontane and in stearic acid. 254.
 —, O. E. s. Goyan, Frank M. 163.
 —, P. W. Indirect exchange coupling of nuclear moments by electrons in semiconductors and insulators. 1648.
 —, Roy S. Variation of line width with rotational state and temperature in the microwave spectrum of OCS. 786.
 — s. Gordy, Walter. 1907.
 —, S. P. s. Sucksmith, W. 2454.
 —, T. H. Scintillation studies on activated alkali halides. 1262.
 —, Jordan, R. D. and Alger, R. S. Irradiation effects in some organic compounds. 2207.
 —, Victor C. and Rudnick, Philip. Thermistor bridge correlator. 462.
 —, W. A. and Arnold, J. T. Proton relaxation times in H_2O - D_2O mixtures. 1644.
 Andersson, B. Precision wavelength and energy measurements of gamma rays from ^{152}Eu , ^{154}Eu , ^{153}Sm and ^{163}Dy . 2386.
 —, B. s. Ryde, N. 856.
 —, Ebba s. Sjöstrand, F. S. 1692.
 —, Göran s. Ehrenberg, Lars 2558.
 —, Nils Elvir und Hertz, Carl Hellmuth. Positive Spitzenentladung als Hygrometer geringer Trägheit. 33.
 Andrade, E. N. da C. Viskosität von Flüssigkeiten. 1505.
 Andrä, W. und Schwabe, E. Methode, magnetische Elementarbezirke mit trockenem Pulver sichtbar zu machen. 2451.
 Andre, C. G. Huizenga, J. R. Mech, J. E. Ramler, W. J. Rauh, E. G. and Rocklin, S. R. Proton cross sections of Bi^{209} . 2366.
 — s. Carothers, J. E. 1524.
 Andreasen, A. H. M. und Jensen, J. H. Zerkleinerung im Lichte des Ähnlichkeitsprinzips. 870.
 Andrejeschtschew, Je. und Issajew, B. M. Funkenzähler für die Registrierung von α -Teilchen. 225.
 Andrejewa, N. S. und Besirganjan, P. A. Züchtung großer Aluminiumeinkristalle vorgegebener Orientierung. 1194.
 Andreoni, Orazio. Lupo, Massimo e Pisani, Giovanni. Ulteriori considerazioni sulla Roentgen-stimolazione di culture di Salmonella Typhi. 704.
 Andrew, A. Jeppson, M. R. Mather, R. L. and Yockey, H. P. Creep of aluminum under cyclotron irradiation. 1605.
 —, A. M. and Roberts, T. D. M. Pulse-interval meter for measuring pulse repetition frequency. 117.
 —, Kenneth F. s. Gulbransen, Earl A. 2214.
 Andrews, R. D. Retraction of oriented polystyrene monofilaments. 1414.
 — s. Gurnee, E. F. 1412.
 Andrich, E. s. Sittkus, A. 2043.
 Andrieux, J. L. Nature des produits obtenus dans l'électrolyse des sels fondus oxygénés. 2405.
 — et Bonnier, E. Electrolyse des halogénosels fondus. 2405.
 Andrussov, L. Wärmeleitfähigkeit, Viskosität und Diffusion in der Gasphase. XI. Wahre und mittlere Temperaturkoeffizienten, ihre Eigenart und Berechnung. 1970.
 Ang, C. and Wert, C. Torsional pendulum of low thermal inertia. 2541.
 Angelitch, T. P. Bewegung starrer Körper mit nichtholonomen Bindungen in einer inkompressiblen Flüssigkeit. 2290.
 Angello, Stephen J. and Ebert, Theodore E. Minority carrier phenomenon in germanium. 1857.
 Angelo, E. J. jr. Electron-beam tube for analog multiplication. 1492.
 —, N. d' s. Argan, P. E. 1976.
 Angelow, A. s. Ruev, A. 1250.
 Angus, E. T. s. Walker, D. F. 1243.
 Aniansson, Gunnar. Method for measuring the α -particle range and straggling in liquids. 975.
 — s. Nilssen, Gosta. 223.
 Ang, C. and Wert, C. Internal friction of alloys of gold and nickel. 509.
 Angerer, E. v. Technische Kunstgriffe bei physikalischen Untersuchungen. 1.
 Anson, D. Mechanical seal for very high pressures. 368.
 Ansselm, A. I. und Firssow, Ju. A. Freie Weglänge des Excitons in einem Atomkristall. 260.

- Antal, J. J. Weiss, R. J. and Dienes, G. J.* Long wavelength neutron transmission as an absolute method for determining the concentration of lattice defects in crystals. 1194.
- Anthoney, W. R. s. Dinneen, G. U.* 726.
- Antonakos, Antonios.* Simultaneous contrast effect in heterochromatic brightness comparisons. 686.
- Antoncik, Emil.* Formulation of the method nearly free electrons. 280.
- Antosiewicz, H. A. s. Abramowitz, Milton.* 4.
- Antropoff, A. von.* Adsorption von Gasen von kleinsten bis zu höchsten Drucken VIII. Adsorption und e-Satz von Boltzmann-Eucken. 1967.
- Adolf, Anezelius.* Two flow problems in a viscous fluid. 1103.
- Tyûsei, Aoi.* Spheroidal functions. 182.
- Steady flow of viscous fluid past a fixed spheroidal obstacle at small Reynolds numbers. 1104.
- Aoki, Atsushi. s. Hayashi, Takeo.* 1781.
- Apker, L. s. Taft, E.* 1446.
- Appel, Hans und Fünfer, Ewald.* Zündverzögerung und Aufbauzeit der Entladung im Thyatron. 2188.
- , *Joachim.* Elektrische und optische Eigenschaften des Silbertellurids Ag_2Te . 133.
- Appleby, D. B. s. Burch, P. R. J.* 1080.
- Appleton, Sir Edward.* Thermionic devices from the development of the triode up to 1939. 1490.
- *Lyon, A. J. and Turnbull, A. G.* Distortion of the E layer of the ionosphere by electrical currents flowing in it. 2572.
- , *E. V. Lyon, A. J. and Pritchard, A. G.* Detection of the S_q current system in ionospheric radio sounding. 2243.
- , *G. L. s. Halpern, O.* 85.
- Apt, L. s. Hine, G. J.* 344.
- Arakawa, Taiji.* Paramagnetic resonance absorption in manganese fluosilicate diluted with magnesium ions. 1645.
- Microwave generation on opening electrical contacts. 2511.
- Araki, G. and Huzinaga, S.* Recoil effect on electron-proton forces and inapplicability of energy law. 2361.
- and *Watari, W.* Electronic states of C_2 -molecule. III. Numerical values and reduction formulas of integrals. 2412.
- Araki, Gentaro.* Quantum-electrodynamical fourth-order corrections for tripled fine structure of helium. 1612.
- Spin-orbit coupling in the pseudoscalar meson theory of nuclear forces. 1768.
- and *Huzinaga, Sigeru.* Theory of absorption spectra of unsymmetrical cyanines. 2062.
- Arams, Frank R.* Traveling-wave tube system having multiplied gain. 1675.
- and *Jenny, Hans K.* Wide-range electronic tuning of microwave cavities in gas atmospheres. 1247.
- Arata, Hikaru s. Yoshida, Shigetomo.* 2500.
- Araújo, J. M.* Effect of nuclear compressibility on the nuclear photoeffect. 2355.
- Arbeiter, H. J. s. Simons, K. A.* 1454.
- Archibald, W. J.* Field equations from particle equations. 1497.
- Arco-Diacono, Giuseppe.* Importanza del gruppo base nel problema della unificazione dei campi fisici. 716.
- Ard, jr. William B. and Gordy, Walter.* Paramagnetic resonance of irradiated hydrogen sulfide and hydrazine chloride at liquid air temperature. 278.
- Ardenne, Manfred von.* Schallsichtverfahren mit elektronenoptischem Bildwandler. 921.
- Arend, H. Broser-Warminsky, R. und Ruska, E.* Verwendung von ZnS -Einkristallen als Leuchtschirme im Elektronenmikroskop. 2205.
- Arends, Enno.* Germaniumgleichrichter für die Mess- und Regeltechnik und für Kleinststromversorgung. 1040.
- Arendt, P. R.* Reaktor-Konstruktionen. 1329.
- , *Paul Richard.* Ergebnisse von der Internationalen Konferenz für friedliche Anwendung der Atomenergie. II. Vom 8. 8. bis 20. 8. 1955 in Genf. 535.
- Internationale Konferenz für friedliche Anwendung der Atomenergie vom 8. 8. bis 20. 8. 1955 in Genf. 182.
- Arfken, G. s. Klingensmith, R.* 240.
- Argan, P. E. and Gigli, A.* Detector of ionizing radiation. Gas bubble chamber. 1750.
- , — *d'Angelo, N.* Operation of the diffusion cloud chamber. II. 1976.
- Argirović, Milenko.* Influence de la température et de l'humidité sur les constantes électriques du sol. 150.

- Arnulf, Albert. Lunettes à phosphorescence 331.
- et Gagnet, Michel. Mesure des défauts d'homogénéité du verre par immersion en couche mince. 2217.
- Aroeste, Henry. Correlation between infrared intensities, dissociation energies and equilibrium internuclear distances for diatomic molecules. 1615.
- Aron, Jack and Groetzinger, Gerhart. Longitudinal photomagnetolectric effect in germanium. 1863.
- s. Groetzinger, Gerhart. 1861.
- , W., Intosh, J. S. Mc, Schrank, G. and Bigelow, J. H. Elastic scattering of 17 Mev protons by nuclei. 244.
- , W. A. s. Reynolds, George T. 1332.
- Arrott, Anthony and Goldman, J. E. Magnetic susceptibility of UO_2 from 2°K to 300°K . 647.
- Arzac, J. Transmissions des fréquences spatiales dans les systèmes récepteurs d'ondes courtes. 1480.
- Application des théories de l'approximation à l'étude des images optiques. 2519.
- Etude interférométrique des répartitions de luminances en radioastronomie. 1907.
- s. Alon, Iadine. 2231.
- Arthur, Georges R. Statistical properties of the output of a frequency sensitive device. 1971.
- Artman, J. O. Microwave resonance relations in anisotropic single crystal ferrites. 1212.
- and Gordon, J. P. Absorption of microwaves by oxygen in the millimeter region. 785.
- Artmann, Kurt. Quantentheoretische Grundlagen der gewinkelten Valenz. 8.
- Berechnung der Struktur des aufglockerten Moleküls aus dem Minimum der Energie. 540.
- Spinvalenz und reales Molekül. 1401.
- Wellenmechanische Theorie der Kristalloberfläche unter dem Einfluß der Metallelektronen. 2087.
- Theorie anomaler Elektroneninterferenzen an Kristallen bei flachem Einfall. 2205.
- Artsdalen, E. R. van s. Dworkin, A. S. 1109.
- Arvola, Yrjö. Bestimmung der Glaskombination eines verkitteten Fernrohrobjektivs. 1889.
- Asadi, A. M. s. Cochran, George W. 2223.
- Asagoe, Kwan-ichi and Tani, Norito. Luminescent behaviors of ZnS phosphors under the influence of a. c. electric field. 864.
- Asahi, Takashi s. Sakamoto, Nobuhiko. 645.
- Asaka, Saburô. Application of the thin-wing-expansion method to the flow of a compressible fluid past a symmetrical circular arc aerofoil. 738.
- Asakura, Sho and Oosawa, Fumio. Interaction between two bodies immersed in a solution of macromolecules. 1200.
- s. Oosawa, Fumio. 1200.
- Asami, E. s. Nagata, T. 2240.
- Asami, Eizo. Reverse and normal magnetism of the basaltic lavas at Kawajirimisaki, Japan. 2239.
- Asano, Sumitada. Infrared-responsive behaviors of (zinc: cadmium-sulphide: selenide)-type phosphor families. III. Zinc-sulphide: selenide phosphors (2). 864. IV. Zinc: cadmium-sulphide phosphors. 864. V. Zinc: cadmium-sulphide: selenide phosphors. 864.
- Asaro, F., Stephens, F. and Perlman, I. Gamma rays in the alpha decay of 100^{254} . 591.
- and Perlman, I. Table of alphas-integration energies of the heavy elements. 771.
- , — Decay properties of U^{232} . 1785.
- , Stephens, Frank S. jr., Harvey, B. G. and Perlman, I. Complex alpha and gamma spectra of $\text{Cf}^{250, 252}$. 1564.
- , —, Thompson, S. G. and Perlman, I. Gamma rays of 100^{254} . 968.
- s. Hummel, John P. 965, 1792.
- s. Perlman, I. 591.
- s. Stephens, F. 1792.
- s. Stephens, Frank jr. 70.
- s. Stephens, F. S. jr. 2030.
- d'Asaro, L. A. Use of the field emission microscope for investigating surface conditions on an alloy. 1472.
- Asbeck, W. K., Scherer, G. A. and van Loo, Maurice. Paint viscosity and ultimate pigment volume concentration. 2098.
- Ascenzi, A. and Chiozzotto, A. Electron microscopy of the bone ground substance using the pseudo-replica technique. 1274.
- s. Caglioti, V. 1276, 1691.
- Aschenbrenner, F. A. Low-energy protons from targets bombarded by 15-Mev deuterons. 971.

- Ascher, E.* Effet Hall, résistivité et aimantation spontanée dans les alliages irréversibles. 2466.
- , *Edgar A.* Effet Hall, aimantation spontanée et température. 1018.
- Aschner, J. F.* Self diffusion in KCl. 2426.
- Ascoli, R.* Bloch and Nordsieck's divergence. 1092.
- Aseltine, J. A.* and *Favreau, R. R.* Weighing functions for time-varying feedback systems. 1248.
- Ash, E. A.* s. *Gabor, D.* 1657.
- Ashburn, V.* Measurement of the density of the atmosphere by the searchlight technique. 2250.
- Ashkin, J., Blaser, J. P., Feiner, F.* and *Stern, M. O.* Pion-proton scattering at 150 and 170 Mev. 2395.
- , —, —, *Gorman, J. G.* and *Stern, M. O.* Total cross sections for negative and positive pions in hydrogen and deuterium. 424.
- s. *Feiner, F.* 982.
- Askey, C. M.* s. *Palmatier, F. D.* 982.
- Askwith, Joseph G.* and *Sitte, Kurt.* Penetrating showers in light and heavy elements. 990.
- Asmus, E.* und *Wunderlich, H.* Prüfung einiger Näherungsformeln zur Berechnung des Filterfehlers. 495.
- Assur, A.* Dickenwachstum des Eises. 2580.
- Asbury, T. P.* s. *Alexander, G.* 561.
- Astin, A. V.* Protection against radiations from radium, cobalt-60, and cesium-137. 1278.
- Aston, G. H.* s. *Wyckoff, H. O.* 342.
- , *J. G., Tykodi, R. J.* and *Steele, W. A.* Tests of a simplified general model for adsorption of rare gases on solids. 2330.
- s. *Shull, E. R.* 2059.
- Aström, Björn* s. *Rasmussen, John O.* 1550.
- Asundi, R. K.* s. *Krishnamurthy, P. V.* 1749.
- Atalla, M. M.* Arcing of electrical contacts in telephone switching systems. IV. Mechanism of the initiation of the short arc. 2171.
- Arcing of electrical contacts in telephone switching circuits. III. Discharge phenomena on break of inductive circuits. 2500.
- Aten, A. H. W. jr.* s. *Mallmann, C. A.* 1579.
- Aten A. H. W. jr.* and *Boelhouwer, M.* Gammarays from cadmium 117. 2033.
- and *Vries-Hamerling de, T.* Formation and properties of neutron-deficient isotopes of rhodium and palladium. 2371.
- , *Manassen, J.* and *Feyfer de, G. D.* Isomers of 116 antimony. 964.
- , *Cerfontain, H., Decubas, W.* and *Hamerling, T.* Neutron-deficient rhodium isotopes. 2024.
- , *Feyferde, G. D., Sterk, M. J.* and *Wapstra, A. H.* Isomers of ^{190}Os and ^{190}Ir . 2381.
- s. *Haack, P. J. van der.* 2024.
- s. *Verkerk, B.* 2030.
- s. *Vlaar, H. T.* 2030.
- s. *Wiel, A. van der.* 2024.
- Athen, Hermann.* Experimenteller Nachweis des Elektronendralls und der Elementarströme. 1920.
- Atkins, K. R.* Helium films. 262.
- Slope of the λ curve of liquid helium. 449.
- and *Edwards, M. H.* Coefficient of expansion of liquid helium II. 634.
- Atkinson, J. R.* s. *Barnard, A. J.* 1976.
- s. *Wright, I. F.* 952.
- Atoji, Masao* s. *Zaslow, Bertram.* 2068.
- Attaya, William L.* Effect of elevated temperature on the focus of long focal length cameras. 496.
- Special procedures for accurate focusing of cameras. 2196.
- Attew, J. E.* Frame synchronizing separator. 1671.
- Attree, V. H.* Cascode amplifier degenerative stabilizer. 1641.
- Cascode amplifier degenerative stabilizer. 1879.
- , *Benson, F. A.* and *Seaman, M. S.* Characteristics of the temperature-limited diode type 29 Cl. 307.
- Atwater, H. A., Lang, A. R.* and *Chalmers, B.* Surface phenomena appearing on lead single crystals. 2087.
- Aubert, Karl Egil.* Foundation of the theory of relations and the logical independence of generalized concepts of reflexivity, symmetry and transitivity. 1489.
- Auclair, J. M., Hubert, P.* et *Vendryès, G.* Etude des sections efficaces de fission de U^{233} , U^{235} et Pu^{239} pour les neutrons lents. 768.
- , —, —, Spectromètre à neutrons par diffraction cristalline. 2369.

- Audran, R. and Dighton, D. T. R.* Devices for automatic potentiometric titration. 1440.
- Audubert, R.* Théorie de la surtension et mécanisme de la corrosion. 2219.
- Théorie de la surtension et le mécanisme de l'attaque des métaux en solution à l'abri de l'oxygène. 2150.
- Auer, Strom- und Spannungsmesser mit großem Frequenzbereich.* 642.
- , *P. L.* Phenomenological theory of Townsend breakdown in dielectrics. 839.
- and *Murbach, E. W.* Diffusion across an interface. 1632.
- Semiempirical calculation of the Townsend α . 836.
- Prebreakdown current in the Townsend discharge. 2165.
- Auerbach, R.* Kosmologische Dispersoidik. 2449.
- , *T. and French, J. B.* Angular momentum coupling in deuteron reactions. 1353.
- Auger, P. s. Daudin, J.* 2046.
- Aughey, W. Henry and Baum, F. J.* Angular-dependence light scattering — a high-resolution recording instrument for the angular range 0,05—140°. 687.
- Augustyniak, W. s. McReynolds, A. W.* 986.
- Auluck, F. C. and Kothari, D. S.* Effect of magnetic field on gravitating spheres. 1281.
- , —, *L. S.* Riesz potential. 360.
- Aurand, K. und Pauly, H.* Beeinflussung der Gewebeatmung durch Röntgenstrahlen. 2227.
- Austerman, S. B.* Stored energy release in graphite irradiated at low temperatures. 1801.
- Austern, N.* Isobar role in two-nucleon processes: deuteron photoeffect. 1928.
- and *Butler, S. T.* Coulomb effects in deuteron stripping. 85.
- Austin, I. G. and Wolfe, R.* Electrical and optical properties of a semiconducting diamond. 1860.
- , *Pauline M.* Quantitative measurements of radar echoes from precipitation. 530.
- Autler, S. H. and Roat, W. F.* Light decay from electroluminescent phosphors. 863.
- and *Townes, C. H.* Stark effect in rapidly varying fields. 1621.
- Autume, Georges Masson d'. Compensation mécanique d'un canevas altimétrique obtenu par aérotriangulation.* 1681.
- Averbach, B. L. s. Hillert, M.* 2544.
- *s. Kulin, S. A.* 2128.
- *s. Kurtz, A. D.* 1653.
- Avery, D. G. and Gunn, J. B.* Use of a modulated light spot in semiconductor measurements. 649.
- Aves, R., Barnes, D. and MacKenzie, R. B.* Fission chambers for neutron detection. 225.
- Avram, Mlle Marguerite s. Nenitzesco, Costin D.* 551.
- Ax, Johannes.* Spektralphotometrischer Vergleich zwischen Schnellläufern und normalbewegten Sternen. 2235.
- Axel, Peter, Fox, John D. and Parker, Richard H.* Identification of Mo⁹¹ and Mo^{91m}. 585.
- *s. Fox, John D.* 1354.
- *s. Vegors, Stanley H. jr.* 1159.
- Axelrod, J. M. s. Adler, I.* 502.
- Axon, P. E., Gilford, C. L. S. and Shorter, D. E. L.* Artificial reverberation. 378.
- *s. Stott, A.* 378.
- Ayabe, Yuzo s. Matsuda, Hiroaki.* 663.
- Ayant, Y.* Fonction de corrélation d'une variable quantique. 718.
- Etude du couplage spin-spin dans la résonance quadriplaire de l'azote. 2109.
- Ayer, H. E. s. Tsivoglou, E. C.* 2576.
- , *R. B.* High-power industrial vacuum tubes. 1455.
- Ayers, J. C. s. Anderson, D. V.* 711.
- , *S. s. Bechmann, R.* 147.
- Aymá, Francisco Joanrich.* Identificación metalográfica de la fase sigma en un acero ferrítico al cromo y dos austeníticos al cromo-níquel. I. Introducción. Experimentias con acero ferrítico al cromo. 2544.
- Ayres, R. U. and Tredgold, R. H.* Crystal structure of the solid rare gases. 1405.
- , *W. P., Vartanian, P. H. and Melchor, J. L.* Frequency doubling in ferrites. 1685.
- Ayscough, P. B. and Steacie, E. W. R.* Photolysis of hexafluoroacetone. 1258.
- Azaroff, L. V. s. Brophy, J. J.* 134.
- Azcona, Juan M. López de.* Interpretación geofísica de las variaciones isotópicas naturales de los elementos químicos. 2344.

- Aziz, R. A. and Scott, G. D. Electrical resistance properties and structure of thin evaporated silver films. 640.
- Azuma, R. E. Upper limits for the lifetimes of the excited states of titanium 46. 1150.
- and Lewis, G. M. Lifetime of the first excited state of thallium 203. 1150.
- , Shūkō s. Hasegawa, Kazu. 2396.
- , Toshio. Beta-spectra of Ag110 and Sb124. 772.
- Internal conversion coefficient of Ba¹³⁷. 968.

B

- Baatz, H. Blitz und Überspannungen. 1490.
- Baba, H. s. Omura, I. 1187.
- Babb, A. L. s. Mai, K. L. 1978.
- Babcock, Harold D. s. Babcock, Horace W. 1280.
- , — Sun's magnetic field and corpuscular emission. 1280.
- , K. L. and Overstreet, Roy. Use of calomel half cells to measure Donnan potentials. 2158.
- Babiskin, Julius. Ultra-low-level voltage detector using bismuth and superconductors. 1844.
- Bacchus, P. Principes de progrès dans l'entretien des pendules astronomiques. 1085.
- Bach, G. G. and Livesey, D. J. Cross section for the reaction ¹⁰B(pα) ⁷Be at proton energies below 200 kev. 767.
- Bachmann, H. s. Waldmeier, M. 877.
- , H. s. Cremer, E. 29.
- , W. Meßtechnische Voraussetzungen und Erfordernisse für Manometer mit elastischem Rohrfeder-Meßglied bei Verwendung bis zum Skalenendwert. 724.
- Back, F. G. Zu Rumsey, N. J.: Suggested method for evaluating image sharpness. 1465.
- Performance testing of photographic lenses. 1458.
- Backenstoß, G. and Wohlleben, K. Intensitätsmessungen der energiereichen γ-Strahlung von RaC'. 596.
- Backman, M. E. and Morrison, H. L. Rittinger's number for several minerals. 170.
- Backofen, E. W. and Herber, R. H. Half-lives of Mn⁵² and Mn⁵⁴. 579.
- Backus, G. E. Application of eigenfunction expansions to the problem of the thermal instability of a fluid sphere heated within. 2313.
- Backus, John. Alternative interpretation of magnetic forces between moving charges. 1848.
- Bacon, G. E. and Dyer, R. F. Spectrometer for single crystal neutron diffraction. 1326.
- Bacq, Z. M. Action indirecte du rayonnement X et ultra-violet. 1479.
- Badami, G. N. and Egerton, Sir Alfred. Burning velocities of slow flames. 925.
- Bade, W. L. and Jehle, Herbert. Spinors. 1491.
- s. Jehle, Herbert. 628.
- Bader, M. s. Pixley, R. E. 1797.
- Badoz, J. Biréfringence acoustique d'une solution de molécules déformables. 162.
- Bähring, Herbert. Kippgeräte. 486.
- Bär, Marianne s. Allen, W. D. 2113.
- Baer, P. und Miescher, E. NO-, NO+ und N₂⁺-Emissionsspektren im Schumanngebiet. 437.
- Baertschi, Peter. Isotopic composition of the oxygen in silicate rocks. 1984.
- Baeumer, Joachim s. Kepp, Richard Kurt 345.
- Baez, Albert V. s. El-Sum, Hussein M. A. 1684.
- Bagchi, S. N. Absolute Einzelelektrodenpotential. 2143.
- s. Hosemann, R. 103, 897, 1920, 1930, 2065.
- Bagge, Erich. Messung von Stromstößen freier atomarer Ladungsträger mit dem Induktometer. 40.
- Elektrodynamik des polarisierbaren Vakuums. 1928.
- Bagguley, D. M. S. Microwave spectroscopy as applied to solids. 647.
- Bahr, G. F. Larger section areas for electron microscopy by aid of ultrasonics. 1692.
- Bailey, D. K., Bateman, R. and Kirby, R. C. Radio transmission at VHF by scattering and other processes in the lower ionosphere. 2507.
- , J. B. s. Röhrer, R. H. 553.
- , L. Evan. Angle and energy distribution of charged particles from the cyclotron bombardment of Ni and Ag by 200-Mev protons. 1538.
- , R. Versatile transistor tester. 1655.
- , R. A. s. Allen, T. K. 670.

- Bailey, T. L. and Muschlitz, E. E.* Scattering of low-energy H-ions in helium. 780.
- , *W. F. s. Hirsch, C. J.* 489.
- Baillet, André.* Photomètre pour la lumière du ciel nocturne. 1700.
- Bain, W. C.* Rapidity of fluctuations in continuous-wave radio bearings at high frequencies. 1058.
- , *Bracewell, R. N., Straker, T. W. and Westcott, C. H.* Ionospheric propagation of radio waves of frequency 16 kc/s over distances of about 540 km. 1914.
- Bair, J. K., Kington, J. D. and Willard, H. B.* N^{14} level structure from the C^{13} (p, n) N^{13} reaction. 51.
- , —, — Gammatay and neutron yields from the proton bombardment of boron. 1563.
- *s. Johnson, C. H.* 408.
- *s. Kington, J. D.* 1540.
- *s. Willard, H. B.* 980, 2376.
- Baird, D. C.* Dependence of the superconducting transition on measuring current. 1022.
- , *Donald H. and Bird, George R.* Method for the estimation of the relative intensities of microwave absorption lines. 787.
- Bajraktarevic, Mahmud.* Cas spéciaux du théorème généralisé de la moyenne. 2262.
- Bak, Borge and Andersen, F. Allan.* Infrared spectrum of ketene. 1816.
- and *Rastrup-Andersen, John.* Microwave investigation of pyridine. 434.
- , *Hansen, Lise and Rastrup-Anderson, John.* Microwave spectrum of pyridine. 434.
- *s. Andersen, Flemming.* 431.
- Baker, Don A. s. Barker, Roland S.* 99.
- Baker, Dwight I.* Mixture ratio and temperature surveys of ammonia-oxygen, rocket motor combustion chambers. 1951.
- , *E., Caretto, A., Cumming, J., Friedlander, G., Hudis, J. and Wolfgang, R.* Excitation functions of radioactive products from the interaction of high-energy protons with lead. 954.
- , *E. A. and Smyth, M. J.* Application of photography to astronomy. 1906.
- , *E. W. s. Knight, J. D.* 1548, 2022.
- , *Howard D.* Direct comparisons between light and dark adaptation. 1476.
- Baker, J. C.* Fast-rate variable pulse generator. 304.
- , *J. M. and Bleaney, B.* Hyperfine structure of praseodymium. 465.
- , — Nuclear magnetic moment of holmium 165. 569.
- , —, *Llewellyn, P. M. and Shaw, P. F. D.* Nuclear spins and magnetic moments of cobalt 56 and 57. 2358.
- , *L. R.* Integrating photometer employing scalped gratings. 495.
- Construction of a lead-screw without a master thread. 542.
- , *Milton R. and Vallee, Bert L.* Cyano-genoxxygen flame as a spectrochemical source. 1894.
- *s. Vallee, Bert L.* 2526.
- , *T. W.* Eberhard-Effect in X-ray powder photographs. 1896.
- , *W. F., Williams, R. E. and Rainwater, J.* Elastic scattering of Pi mesons from nuclei. 1385.
- , *Winslow s. Williams, Ross.* 1385.
- , *W. H., Curtis, M. L., Gnagey, L. B., Heyd, J. W. and Stanton, J. S.* Very wide-range absorption counting system. 224.
- Bakke, Finn und Stech, Berthold.* Streuung von Teilchen mit dem Spin $1/2$. II. Streumatrix als Funktion der Streuphasen. 972.
- Balabanian, N. and Cahn, C. R.* Tee-Pi transformations. 2513.
- Balachandran, Muthuswami.* Messungen der Dielektrizitätskonstanten und des Verlustwinkels von Baumaterialien. 841.
- Balagna, J. P. s. Browne, C. I.* 65.
- Balakrishna, S.* Effect of temperature on ultrasonic velocities in some Indian rocks. 921.
- Balazs, N. L.* Invariant relationship of the energy-density and momentum-density of the electromagnetic field. 898.
- Resolution of fourdimensional vector fields and tensor fields, and its application to electrodynamics. 2110.
- Balcarczyk, L. s. Brukl, A.* 1935.
- Baldin, A.* Interaction of the electromagnetic field with nucleonic and mesonic fields. 1929.
- Baldinger, E. und Leuenberger, F.* Einfluß der Verdrahtung auf das Auflösungsvermögen von Kathodenstrahlröhren u. Koinzidenzschaltungen. 463.

- Baldinger, E. und Nicolet, M.* Impuls-generator mit Sekundäremissionsröhren. 1248.
- , *Huber, P., Meyer, K. P. und Würger, E.* Messung des Verhältnisses der α -Aktivität von U^{235} und U^{234} im natürlichen Uran. 1537.
- s. *Zbinden, R.* 1882.
- Baldo, M., Ceccarelli, M., Grilli, M. and Zorn, G. T.* Negative K-mesons. 563.
- , *Belliboni, G., Sechi, B. and Zorn, G. T.* Observations on K-meson decays. 393.
- Baldock, C. R. s. Boyd, G. E.* 1779.
- Balduin, H. s. Wieden, P.* 2447.
- Baldwin, G. C.* Betatron orbit stability studies. 1985.
- , *G. J., Shilts, J. L. and Coomes, E. A.* Temperature scale for molybdenum. 688.
- , *John s. Fischer, David* 1591.
- , *Robert L., Dunlop, Peter J. and Gosting, Louis J.* Interacting flows in liquid diffusion: equations for evaluation of the diffusion: coefficients from moments of the refractive index gradient curves. 1632.
- , *W. M. jr. s. Morton, P. H.* 1101.
- Balkanski, Minko.* Influence de l'alcool polyvinyle sur la surtension du cuivre en solution de nitrate de cuivre. 2482.
- Surtension de cuivre en solution de $(PO_4)_2Cu_3 + PO_4H_3$ en présence d'alcool polyvinyle. 2482.
- Ball, C. J. and Hirsch, P. B.* Surface distributions of dislocations in metals. 799.
- , *Frances L. s. Harris, W. W.* 1842, 2210.
- , *William P. s. MacGregor, M. H.* 1597.
- Ballam, J., Hodson, A. L. and Reynolds, George T.* Observations on S particles. 1332.
- , —, *Martin, W., Rau, R. Ronald., Reynolds, Geo. T. and Treiman, S. B.* Orientation of planes in double V^0 decay events. 938.
- s. *Arnold, W. H.* 403, 938, 1133, 1332, 1333, 1755.
- s. *Hodson, A. L.* 395.
- Ballard, Stanley S.* International commission of optics. 894.
- Proposal of the international commission of optics for international standardization of sign conventions and symbols in geometrical optics. 2198.
- Ballard, Stanley S. s. Combes, Lewis S.* 27.
- s. *McCarthy, Kathryn A.* 1960.
- Ballario, C. s. Alexander, G.* 561.
- Ballini, René s. Koicki, Stevan* 963.
- Balser, M. s. Golay, M. J. E.* 1872.
- Balsley, J. R. and Buddington, A. F.* Correlation of reverse remanent magnetism and negative anomalies with certain minerals. 2239.
- Balz, G., Birkner, R. and Wachsmann, F.* Experimentelle Untersuchungen über die Absorption von Röntgenstrahlen in verschiedenen Geweben. 1277.
- s. *Reiniger, G.* 1062.
- Bame, S. J. jr. s. Perry, J. E. jr.* 2010.
- Bamford, C. H. and Jenkins, A. D.* Polymerization. IX. Occlusion of free radicals by polymers: physical factors determining the concentration and behaviour of trapped radicals. 1200.
- Banas, E. M. and Mrouca, B. A.* Nuclear spin-spin relaxation time in polymers. 1412.
- Bancroft, Wilder Dwight* 1867—1953, 2254.
- Bancroft, William Henry jr. s. Barringer, Howard Skelton* 674.
- Band, William.* Exclusion principle and the theory of superconductivity. 2113.
- Banda, J. F. G. s. Foz, O. R.* 788.
- Bandel, H. W.* Measurement of the current during the formative time lag of sparks in uniform fields in air. 143.
- Measurement of the current during the formative time lag of sparks in uniform fields in air. 1045.
- Bandtel, K. C., Frank, W. J., Higgins, L. and Moyer, B. J.* Reaction $H^1(H^2He^3)\pi^0$ at 340-Mev proton energy. 1342.
- , *Bostick, H. A., Moyer, B. J., Wallace, R. W. and Wikner, N. F.* Pion-proton total cross sections near 4 Bev. 1602.
- s. *Dixon, Dwight R.* 576.
- s. *Madey, Richard* 390.
- Bane, W. T. and Dymott, E. R.* Resistance thermometer with a high speed of response. 211.
- Banerjee, B. K. and Chakraborty, D. M.* X-ray study on the micellar and intermicellar zones of some cellulose fibres. 111.
- , *D. K. s. Banerjee, S. S.* 303.
- , *S. S. and Banerjee, D. K.* Variation of the angle of arrival of the downcoming radio waves from the ionosphere with the appearance of scattered signals. 303.

- Banerji, R. B.* Distribution-in-speed of fading of 150-kc./s. waves. 1450.
- *s. Baral, S. S.* 2571.
- Banet, Leo.* Simple, empirical mass spectrum of fundamental particles. 43.
- Banfield, William G.* Width and length of collagen fibrils during the development of human skin, in granulation tissue and in the skin of adult animals. 2223.
- Bang, F. B.* Virus particles in normal chick embryo cells and their similarity in appearance to the Rous tumor virus particles. 2222.
- Bangert, Lothar s. Köster, Werner* 732.
- Bankoff, S. G. and Lyon, R. N.* Ultrasonic unmixing of isotopic solutions. 1957.
- Banks, J. H.* Multiple fault analysis of delta-star transformer banks. 1054.
- Baños, Alfredo jr.* Fundamental wave functions in an unbounded magneto-hydrodynamic field. General theory. 466.
- Magneto-hydrodynamic waves in incompressible and compressible fluids. 819.
- Normal modes characterizing magneto elastic plane waves. 1848.
- Banta, H. E. s. Macklin, R. L.* 53.
- Baptista, A. M. et Galvão, J. P.* Volume sensible des compteurs de Geiger-Müller à cathode externe. 1346.
- Barabaschi, S., Cottini, C. and Gatti, E.* High sensitivity and accuracy pulse trigger circuit. 755.
- Baral, S. S., Mitra, R. K., Saha, A. K., Chatterjee, B. and Kundu, M. R.* Characteristics of the ionosphere over Calcutta. 2571.
- , —, *Banerji, R. B., Saha, A. K., Ghosh, M., Chatterjee, B. and Kundu, M. R.* Characteristics of the ionosphere over Calcutta. 2571.
- , —, —, —, —, *Datta, S. and Ray, S.* Characteristics of the ionosphere over Calcutta, Juni 1954. 1286.
- Baranger, Elizabeth Urey.* Analysis of the elastic scattering of protons from F^{19} . 1588.
- Barbaron, M. s. Pestil, P.* 326.
- Barber, C. R.* Platinum resistance thermometer for use at low temperatures. 379.
- and *Pemberton, L. H.* Silver-palladium thermocouples. 746.
- Barber, C. R., Handley, R. and Herrington, E. F. G.* Preparation and use of cells for the realization of the triple point of water. 1957.
- , *D.* Measurements of current noise in lead sulphide at audio frequencies. 824.
- , *D. R.* Changes in brightness, polarization, and colour of the zenith day sky accompanying geomagnetic activity. 1916.
- , *E. M., Muenger, J. R. and Villforth, F. J. jr.* High rate of shear rotational viscometer. 202.
- , *N. F.* Harmonic analysis. 1726.
- , *W. s. George, W.* 576.
- , *W. C.* Specific ionization of high-energy electrons. 606.
- , *George, W. D. and Reagan, D. D.* Absolute cross section for the reaction $C^{12}(\gamma, n)C^{11}$. 406.
- , *Berman, A. I., Brown, K. L. and George, W. D.* Z-dependence of bremsstrahlung. 1799.
- *s. Brown, K. L.* 1384.
- Barbezat, S. et Trillat, J.-J.* Etude par rayons X de la décomposition du bleu de prusse par la chaleur. 2327.
- *s. Trillat, J.-J.* 752.
- Barbier, D.* Analyse du spectre du ciel nocturne. 1284.
- , *J. C.* Balance magnétique de torsion. 693.
- Barbour, J. P. s. Trolan, J. K.* 1052.
- Barbrow, L. E.* Zürich meeting of the International Commission on illumination. 357.
- Barcala, J. s. Casas, J.* 162.
- Barchewirtz, P. et Henry, L.* Polarisation du rayonnement infrarouge et mesure de l'indice du sélénium. 861.
- Barclay, F. R. and Jelley, J. V.* Čerenkov and isotropic radiations from single μ -mesons in air. 36.
- Bardeen, John and Pines, David.* Electron-phonon interaction in metals. 1849.
- *s. Letaw, Harry jr.* 825.
- Barden, S. E.* Space-charge forces in strongfocusing synchrotrons. 390.
- Regenerative deflection as a parametrically excited resonance phenomenon. 391.
- Bardócz, A.* Lichtquellen für Spektralanalyse. X. Hochspannungs-Funkenlichtquelle mit mechanischer Steuerung. 866.

- Bardócz, A.* Lichtquellen für Spektralanalyse. Elektronisch gesteuerter Funkenzeuger. 1680.
- Electronically controlled spectrographic low-voltage spark, interrupted arc and d. c. arc source. 1681.
- Light sources for spectrum analysis. IV. High voltage spark source with electronic control and its electrical characteristics. 1681.
- Bardolle, Jean.* Méthode d'étude micrographique de la structure du fer γ par formation de germes d'oxyde épitaxiaux à sa surface. 508.
- Bardsley, W. and Straughan, B. W.* Spiral etch pits in silicon. 2072.
- *s. Gibson, A. F.* 1437.
- *s. Hogarth, C. A.* 1430.
- Barducci, I.* Diffusion coefficient of N in α -Fe. 1409.
- Barrella, Alberto.* Estudio óptico de los hilos. Sobre el coeficiente de vellosidad. 2432.
- Barendsen, G. W. s. Vries, Hl. de* 1975, 2344.
- Barfield, R. N. and Kitchener, J. A.* Viscosity of liquid iron and iron-carbon alloys. 287.
- Bargellini, P. M. and Herscher, M. B.* Investigations of noise in audio frequency amplifiers using junction transistors. 139.
- Barile, S., Webeler, R. and Allen, G.* Determination of the ranges and straggling of low energy alpha particles in a cloud chamber. 415.
- *s. Allen, G.* 1795.
- and *Webeler, Rayjor.* Influence of the variation of the conditions in a cloud chamber during the sensitive time on the accuracy of cross-section measurements. 386.
- Barkas, Walter H., Birnbaum, Wallace and Smith, Frances M.* Mass-ratio method applied to the measurement of L-meson masses and the energy balance in pion decay. 1528.
- , *Barrett, Paul H., Cuer, Pierre, Heckman, Harry H., Smith, Frances M. and Ticho, Harold K.* High-velocity particle ranges in emulsion. 1748.
- *s. Heckman, Harry H.* 1121, 1758.
- *s. Smith, Frances M.* 1757.
- Barker, J. A.* Cell theory of liquids. 801.
- , *J. R. and Dobbs, E. R.* Measurement of the elasticity of solid argon with an ultrasonic interferometer. 2282.
- Barker, K. H., Sard, R. D. and Sowerby, M. G.* Use of neutron counters to obtain cloud-chamber photographs of V-particle decays. 1999.
- *s. Armenteros, R.* 1999.
- *s. Glueckauf, E.* 402.
- , *R. H.* Transducer for digital data-transmission systems. 727.
- Servo system for digital data transmission. 727.
- , *Roland S. and Eyring, Henry.* Evaluation of some electron repulsion integrals needed in molecular quantum mechanics. II. Use of the Neumann expansion in evaluation of two electron three-center repulsion integrals. 1401.
- , — Evaluation of some electron repulsion integrals needed in molecular quantum mechanics. Method of calculation of two electron multi-center repulsion integrals without the use of the Neumann expansion. 1616.
- , — Use of nuclear attraction integral approximations in molecular quantum mechanics. 1931.
- , —, *Thorne, Charles J. and Baker, Don A.* Use of electron repulsion integral approximations in molecular quantum mechanics. 99.
- Barkhausen †, Heinrich* 1489.
- Barkow, A. G. s. Cook, M. J.* 1695.
- Barlow, H. M., Ross, I. M. and Thompson, N. A. C.* Amplifier based on the Hall effects. 1227.
- , *H. E. M. and Stephenson, L. M.* Hall effect and its application to power measurement at microwave frequencies. 824.
- *s. Fernando, W. M. G.* 1875.
- Barnard, A. J. and Atkinson, J. R.* Diffusion cloud chamber. 1976.
- , *C. R.* Method of increasing the ambient illumination of radar operations rooms without reduction of signal detection threshold. 1879.
- , *G. P.* Experimental mass spectrometer. 931.
- Barnartt, Sidney.* Measurement of electrode polarization by the current-interrupter method. 2482.
- Barnes, C. A.* Gamma radiation from the inelastic scattering of protons by F^{19} . 410.
- and *Kavanagh, R. W.* 15-Mev gamma radiation from $B^{11} + d$. 1795.

- Barnes, C. A., Fowler, W. A., Lauritsen, C. C., and Peterson, R. W.* Inelastic proton scattering cross section of F^{19} . 581.
- , *D. s. Aves, R.* 225.
- , *George.* Field emission from rhenium: emission pattern corresponding to hexagonal crystal structure. 483.
- Automatic recording photographic densitometer. 498.
- , *H. s. Rothschild* 339.
- , *Raymond F. s. Diamond, Herbert* 2023.
- , *R. G. and Bray, P. J.* Pure quadrupole resonances in Sb and Bi compounds. 2458.
- , *Miller, O. B. and Wooten, F. O.* Nuclear quadrupole resonances in solid aryl bromides and iodides. 1643.
- *s. Bray, P. J.* 647, 2458.
- , *R. S.* Temperature control of a fluid stream. 368.
- Effects associated with the flow of vacancies in intermetallic diffusion. 1628.
- , *S. W. Miller, D. Ring, J. Giacomelli, G. Summers, R. and Childs, H. R.* Pion-proton elastic-scattering cross sections at 43 Mev and $37\frac{1}{2}^\circ$. 1602.
- Barnett, C. F. and Stier, P. M.* Electron capture cross section for protons. 1182
- , — Electron loss cross section for fast helium atoms. 1803.
- *s. Stier, P. M.* 428, 1394, 1607.
- Barnhart, P. W. s. Lufcy, C. W.* 908.
- Barns, C. A. s. Mills, jr. W. R.* 1574.
- Baró, G. B. s. Flegenheimer, J.* 567.
- Baroni, G. s. Chamberlain, O.* 2003.
- Baroody, E. M.* Inelastic scattering of medium-fast electrons in alkali metals. 93.
- Barr, T. A. and Jenkins, H. B.* Calculation of diffusion coefficients for polystyrenes from measured values of osmotic pressure. 638.
- Barraud, J. s. Rose, A.-J.* 2065.
- Barredo, J. G.* Physical model of semiconductors. 129.
- Statistics for electrical phenomena. 1020.
- Interaction of elementary particles. 2117.
- Barrer, R. M. and Strachan, E.* Sorption and surface diffusion in microporous carbon cylinders. 113.
- Barrère et Moutet.* Réalisation d'un débitmètre à court temps de réponse. 1730.
- Barret, Pierre.* Dosage de gaz par pesée continue. Application à la cinétique de la dissociation thermique du brome cuivrique. 552.
- Effets mécaniques superficiels en électrolyse par étincelles. 827.
- Pulvérisation des solutions électrolytiques par l'étincelle anodique. 2161.
- Pulvérisabilité et structure superficielle des solutions électrolytiques. 2486.
- , *A. H. and Mandel, M.* Microwave spectra of indium chloride and bromide. 437.
- *s. Mandel, M.* 1816.
- , *C. S. s. Cohen, M. H.* 1851.
- Metallographic study of sodium, potassium, rubidium, and caesium after cooling to $1,2^\circ K$. 2421.
- , *Paul H. s. Barkas, Walter H.* 1748.
- Barrie, R.* Electronic conduction in solids with spherically symmetric band structure. 2419.
- and *Edmond, J. T.* Conduction band of InSb. 1033.
- Barringer, Howard Skelton and Bancroft, jr. William Henry.* Secondary emissions from negative-ion bombardment of metal surfaces. 674.
- Barrington, A. E.* High-temperature cantilever-cathode for noise investigations of 8 mm C. W. magnetron. 2186.
- Barron, T. H. K.* Thermal expansion of solids at low temperatures. 27.
- and *Domb, C.* Cubic and hexagonal close-packed lattices. 1193.
- Barrow, C.* Simple air-lock for ionization gauges. 1302.
- , *Gordon M.* Vapor heat capacities determined by the use of vapor pressure equations. 23.
- , *R. F. and Downie, A. R.* Identification of a band system, $B(^2\Sigma^+)—A^2\Sigma^+$, in OH and OD. 1190.
- *Glaser, D. V. and Zeeman, P. B.* Rotational analysis of bands of the $A^3\Pi_{0+}$, $B^3\Pi_1 = x^1\Sigma^+$ systems of indium monofluoride. 625.
- *s. Dodsworth, P. G.* 254.
- *s. Lagerqvist, A.* 2053.
- Barschall, H. H. and Darden, S. E.* Strength function of nuclear energy levels. 1159.
- *Powell, J. L.* Energy distribution of nuclear reaction products. 1770.

- Barschall, H. H.* s. *Becker, R. L.* 606.
 — s. *Okazaki, A.* 86.
Bart, W. L. s. *Beams, J. W.* 1635.
 — s. *Breazeale, J. B.* 1417.
Bartell, L. S. and *Brockway, L. O.* Investigation of nuclear motion by electron diffraction. 2047.
Bartels, J. and *Veldkamp, J.* International data on magnetic disturbances, fourth Quarter, 1953. 520.
 —, — International data on magnetic disturbances, first quarter, 1954. 520.
 —, — International data on magnetic disturbances, second quarter, 1954. 885.
 —, *K. s. Dennhardt, A.* 2504.
Bartès, E. s. Wetzel, J. 690.
Barth, G. s. Wachsmann, F. 344.
 —, *Nikolaus.* Supraleitung und elektrischer Widerstand aufgedampfter Wismutschichten. 126.
Barthelt, Hans und *Böhme, Werner.* Zerstörungsfreie Prüfung der armierten Enden von Langstabisolatoren nach dem Ultraschall-Echo-Verfahren. 1893.
Barthélemy, René. Cible légèrement conductrice à deux faces actives. 1454.
Bartholomé, E., Gerrens, H., Herbeck, R. und *Weitz, H. M.* Kinetik der Emulsionspolymerisation von Styrol. 1836.
Bartholomew, G. A., Gove, H. E., Litherland and *Paul, E. B.* Gamma radiation from the proton bombardment of Mg^{24} . 1784.
 —, *Brown, F., Gove, H. E., Litherland, A. E.* and *Paul, E. P.* Capture radiation and neutrons from the bombardment of C^{14} with protons. 964.
 —, —, —, — Resonances in the proton bombardment of C^{14} . 1548.
 —, —, —, — Resonances in proton bombardment of C^{14} . 1784.
 — s. *Gove, H. E.* 65, 1784, 1785.
 — s. *Litherland, A. E.* 572, 1370.
 — s. *Paul, E. B.* 1371, 1559.
 —, *Rosalie M., Boyd, A. W., Brown, F., Hawkings, R., C. Lounsbury, M.* and *Merritt, W. F.* Half-life of Cl^{36} . 239.
Bartlett, J. C. and *Farnilo, C. G.* Determination of the origin of opium by means of the origin of opium by means of the composition of the ash. 505.
Bartlett, James H. Helium wave equation. 1396.
 —, *N. R. s. Mac Leod, S.* 699.
Barton, J. C. Apparatus for measuring the intensity of cosmic radiation at great depths in the sea. 1391.
 — Hodoscoped cosmic-ray recorder. 2337.
 —, *Loy E.* Experimental transistor personal broadcast receiver. 681.
 —, *M. Q. s. Smith, J. H.* 1775.
 —, *R. S. s. Lawson, J. D.* 1250.
Baruch, P. et *Nozières, P.* Diffusion des porteurs par les impuretés ionisées dans les semi-conducteurs. 1216.
Bas, E. B. Feinstrahl-Elektronen-Kanone mit indirekt geheizter Wolfram-Bolzenkathode und Ionentrennung. 557.
 — Elektronenoptische Bank. 165.
Bashkin, S. and *Carlson, R. R.* Gamma rays from proton bombardment of Li^6 . 411.
 —, — Gamma rays from proton bombardment of Li^6 . 597.
 —, — and *Nelson, E. B.* Radiative capture of protons by N^{14} . 1362.
 —, —, — Radiative capture of protons by N^{14} . 1551.
 — s. *Carlson, R. R.* 1366.
 —, *Y.* and *Meyer, L.* Lattice constants of graphite at low temperatures. 1822.
Basile, R. et *Schuhl, C.* Etalonnage en énergie d'un béta-tron de 22 MeV. 761.
 — Forces d'échange en théorie causale. Limites de validité de la notion d'énergie d'échange. 1926.
Baskir, E., Tinlot, John and *Spital, Sidney.* Polarization effects in proton-proton scattering at 210 MeV. 418.
Bass, Arnold M. and *Broida, Herbert P.* Spectra emitted from solid nitrogen condensed at $4,2^\circ$ K from a gas discharge. 2207.
 — s. *Benedict, W. S.* 253.
 — s. *Kiess, Norman H.* 102.
 — und *Zidilkowsskij, I. M.* Theorie der Effekte nach *Hall* und *Ernst Ettingshausen* in Halbleitern mit gemischter Leitfähigkeit. 286.
 — und *Pirani, F. A. E.* Gravitational effects of distant rotating masses. 715.
 — and *Schrödinger, E.* Must the photon mass be zero? 720.
Basset, Jacques s. Basset, James. 193.
 —, *James et Basset, Jacques.* Dispositifs de mesure absolue des très hautes pressions avec piston libre oscillant ou rotatif et dispositifs de mesure électrique des très hautes pressions. 193.

- Bassi, P. Mittner and Scotoni, I.* Half-liter clean bubble chamber. 1323.
- Bastiansen, Otto s. Andersen, Flemming.* 431.
- Bastin, E. W. and Kilmister, C. W.* Concept of order. II. Measurements. 1492.
- Basu, Sadhan.* F-centres in metaphosphate glass. 801.
- Free electron network model for cyanines and diphenyl polyenes. 1186.
- Nitrogen electronegativity correction in free electron network theory. 1617.
- Semiquantitative evaluation of resonance and overlap integral for C-N bond in S-triazine. 2406.
- Batchelor, G. K.* Diffusion in a field of homogeneous turbulence. II. Relative motion of particles. 376.
- and *Proudman, I.* Large-scale structure of homogeneous turbulence. 547.
- , *Binnie, A. M. and Phillips, O. M.* Mean velocity of discrete particles in turbulent flow in a pipe. 736.
- , *K. K.* Class of solutions of the *Navier-Stokes* equations representing steady rotationally-symmetric flow. 914.
- , *R.* Experiments on the inelastic scattering of neutrons by uranium. 1798.
- and *Morrison, G. C.* Angular distribution of $\text{Li}(p, n)^7\text{Be}^*$ neutrons for proton energies between 2.5 and 2.9 mev. 572.
- , *Eppstein, J. S. Flowers, B. H. and Whittaker, A.* Slow-neutron capture in helium. 2038.
- *s. West, D.* 224.
- Bateman, R. s. Bailey, D. K.* 2507.
- Bates, D. R.* Theory of the auroral spectrum. 2241.
- and *Carson, T. R.* Exakt wave functions of HeH^{4+} . 723.
- , *L. F. and Martin, D. H.* Domain structures in alnico. 170.
- , — Ferromagnetic domain nucleation in silicon iron. 2104.
- and *Sherry, N. P. R.* Direct separation of the reversible and irreversible components of the magnetothermal effect. 279.
- and *Simpson, A. W.* Thermal effects associated with the magnetization of high-coercivity materials. 816.
- *Leach, S. J. and Loasby, R. G.* Magnetic asusceptibility of metllic cerium. 816.
- Bath, H. M. and Cutler, M.* Measurement of bulk and surface recombination by photoconductance. 1430.
- Battat, M. E. and Graves, E. R.* Gamma rays from 14-MeV neutron bombardment of C^{12} . 412.
- Batten, Hugh W.* Plasma fluctuations in crossed electric and magnetic fields. 1047.
- Batley, J. F. and Baum, R. M.* Energy of the high-lying acceptor level in copper-doped germanium. 130.
- , — Carrier capture probabilities in nickel doped germanium. 1032.
- *s. Baum, R. M.* 1031.
- Batuecas, T.* Determination of atomic masses by the pykno-X-ray method 221.
- Batz, P. s. Munk, E.* 1292.
- Batzer, H. und Wiloth, F.* Substituierte Polyester. 454.
- Baudler, M.* Phosphorverbindungen. III. Ramanspektren von einigen Estern der phosphorigen Säure und der Phosphorsäure. 1188.
- Bauer, Ernest and Wu, Ta-You.* Cooling of a gas by radiation. 180.
- Bauer, Georg.* Durchlässigkeit von Monochromatoren. 1881.
- Bauer, G. H.* Zählender Frequenzmesser für den Bereich bis 1 MHz. 2100.
- , *S. H.* Rates of approach to equilibrium. 1514.
- Baughan, E. C. s. Twist, D. R.* 1099.
- Bauhoff, Günter s. Dickmann, Herbert.* 1918.
- Baum, F. J. s. Aughey, W. Henry.* 687.
- , *R. M. and Batley, J. F.* Electron capture probability of the upper copper acceptor level in germanium. 1031
- *s. Batley, J. F.* 130, 1032.
- Baumann, H. P. s. Schubert, H.* 2558.
- , *K. s. Desr, S.* 396.
- , *M. s. Mannchen, W.* 2215.
- , *N. P. Prosser jr., F. W. and Krone, R. W.* Gamma-ray resonances in the proton bombardment of Na^{23} . 1137.
- , —, — Elastic scattering of protons from Na^{28} . 2390.
- *s. Krone, R. W.* 1563.
- Baumgarten, Henry E. s. Marvel, C. S.* 452.
- Baumgartner, W. und Schätti, N.* Photoeffekt bei Cs-O-, Cs-S-, Cs-Se- und Cs-Te-Photokathoden. 2172.

- Baumgartner, W. s. Schätti, N.* 308.
 — und *Thoma, Hans Ulrich*. Strom-rauschen von Halbleitern. 1215.
Bavel, C. H. M. van Underwood, Newton and Swanson, R. W. Soil moisture determination by neutron measurements. 1704.
Baxendale, J. H. and Smithies, D. Radical yields in X-irradiated aqueous solutions. 2202.
Baxter, S. and Wilmot, P. D. Dielectric test cell for liquids. 2167.
Bay, Z. Henri, V. P. and Kanner, H. Statistical theory of delayed coincidence experiments. 1791.
 —, — und *McLernon, F.* Upper limit for the lifetimes of excited states of Ni⁶⁰. 583.
Bayard, M. et Roquet, R. Caractérisation arithmétique des messages et son utilisation pour déterminer les réseaux correcteurs. 1514.
 —, *Robert, T. and Yntema, J. L.* Scattering of 0.6-, and 1.7-MeV electrons from aluminum and gold. 422.
Bayer, E. und Hauser, K. H. Eisen (III)-Komplexe mit 3 ungepaarten Elektronen. 783.
Bayer, Lisel s. Schäfer, Harald. 1113.
 —, *M. s. Meyer-Arendt, J.* 1694.
Bayet, Michel et Dumas, Guy. Fonctionnement de la jauge de Penning. 542.
 — et *Quemada, Daniel.* Recombinaison entre électrons et ions positifs. 1232.
 — *Delcroix, Jean-Loup et Denisse, Jean-François.* Théorie cinétique des plasmas homogènes. 1047.
 —, —, — Théorie cinétique des plasmas homogènes faiblement ionisés. 1234.
Beale, P. T. s. Nobbs, J. McK. 1462.
Beam, Walter R. Possibility of amplification in space-charge-potential-depressed electron streams. 1059.
Beams, J. W. Effect of a centrifugal field upon the rate of transfer through a helium II film. 1196.
 —, *Breazeale, J. B. and Bart, W. L.* Mechanical strength of thin films of metals. 1635.
 s. *Breazeale, J. B.* 1417.
 s. *Connelly, jr. J. J.* 631.
Bean, C. P. Fisher, J. C. and Vermilyea, D. A. Ionic conductivity of tantalum oxide at very high fields. 2478.
Beard, George and Wiedenbeck, M. L. Natural radioactivity of Sm¹⁴⁷. 765.
Beattie jr., H. J. Electron compounds of transition elements. 509.
 —, *I. R.* Electrical conductivity of analcite and ion-exchanged forms of analcite and chabazite. 291.
 — Reaction between water and vitreous silicates. 2216.
 —, *J. R. and Conn, G. K. T.* Resonance absorption of nickel in the infra-red region. 261.
 —, — Optical constants of metals in the infra-red-conductivity of silver, copper and nickel. 316.
 —, *J. W. Henderson, W. J. Moos, W. S. Haas, L. L. and Harvey, R. A.* Large ionization chamber for integral dose measurements in betatron radiation therapy. 1079.
 — s. *Laughlin, J. S.* 2557.
 — s. *Littman, Armand.* 2226.
Beatty, R. W. and Reggia, Frank. Measuring efficiencies of ultrahigh-frequency and microwave bolometer mounts. 1419.
Beaty, E. and Varney, R. Drift velocities of argon ions in argon at various temperatures. 141.
Beauchair, de W. Sonderschieber für Häufigkeitsrechnung. 1709.
Beauregard, de Jean Source d'ions à haute fréquence sur générateur à neutrons de 250 kV. 2345.
 —, *de O. Costa.* Relativistic symmetry in the basic formulation of quantum theory. 363.
 —, *de Olivier Costa.* Théorie du photon de *M. L. de Broglie* dans l'électromagnétisme quantique de *Schwinger*. 719.
 — Relation entre le principe des potentiels retardés et le second principe de la thermodynamique. 1970.
Beaussier, Jacques et Couchet, Georges. Etude au spectromètre de masse de l'émission ionique des alumino silicates. 39.
Becherer, G. und Richter, M. Zählrohr-apparat für röntgenographische Feinstrukturuntersuchungen. 1000.
 — und *Voigtlaender-Tetzner, G.* Röntgenuntersuchungen zur Klärung des Aufbaues von Lignin. 2437.
 — *Brümmer, O. und Ifland, R.* Präzisionsbestimmung von Gitterkonstanten nach dem Rückstrahlverfahren. 2415.

- Bechert, Karl.* Lösungen und Lösungsverfahren für nichtlineare partielle Differentialgleichungen. 358.
- Nichtlineare Feldtheorie. 1294.
- Nichtlineare Elektrodynamik. 1645.
- Beckmann, R. and Ayers, S.* Elastic and piezoelectric coefficients of dipotassium tartrate (DKT). 147.
- Dickenschwingungen piezoelektrischer Kristallplatten. 1871.
- Bechtoldt, C. J. s. Vacher, H. C.* 1690.
- Beck, A.* Stability of thermistors. 2136.
- , *F.* Stability of a phase boundary inside a superconductor. 1214.
- Allgemeingültigkeit des Trägheitsgesetzes der Energie in der Planckschen Fassung. 1922.
- , *Guido.* Relativistic variation of rest mass. 1930.
- , *Paul A. s. Chernock, Warren P.* 866.
- Becker, E. W. und Walcher, W.* Abbildungsfehler im Massenspektrometer infolge von Raumladung und Magnetfeldsättigung. 1981.
- , *Bier, K. und Burghoff, B.* Trenndüse. Neues Element zur Gas- und Isotopentrennung. 220.
- , *Ferdinand.* Seegang und Mikroseismik. 2567.
- , *G. und Krüger, H.* Verhältnis der Kern-Quadrupolmomente der Cu-Isotope. 2008.
- *s. Scheibe, A.* 2272.
- , *G. W.* Mechanische Relaxationerscheinungen in nicht weichgemachten hochpolymeren Kunststoffen. 1011.
- *s. Oberst, H.* 2304.
- , *J. und Scheer, K. E.* Therapeutisches Anwendungsprinzip radioaktiver Isotope in geschlossenen elastischen Applikatoren. 345.
- , *J. H.* Crystal growth, and electrical and optical properties of gray tin. 1221.
- , *J. H. Chalmers, B. and Garrow, E. C.* Mechanical twinning of indium. 1004.
- , *Manfred s. Gebhardt, Erich.* 2545.
- , *Richard.* Beschreibung stationärer statistischer Funktionen. 1921.
- , *R. A. s. Gove, Norwood.* 964.
- *s. Brown, Hugh N.* 68.
- , *R. L. Perkins, R. B. and Barschall, H. H.* Total neutron cross sections of light elements. 606.
- *s. Darden, S. E.* 1361.
- *s. Okazaki, A.* 86.
- Becker s. Walton, R. B.* 575.
- , *R. S. and Sheline, R. K.* Mg^{28} as a tracer with chlorophylls, plants, and their extracts. 876.
- , *Stewart.* Paramagnetic resonance at low fields. 2461.
- , *U.* Entwicklung langlebiger Filamente und ihre Orientierung auf der Sonnenscheibe. 2231.
- , *W. und Steinlin, U.* Dreifarbenphotometrie und Stellarstatistik. 1909.
- , *W. Müller, E. A. und Steinlin, U.* Dreifarben-Photometrie des offenen Sternhaufens NGC 7510 und seiner Umgebung. 881.
- , *W. M. and Lark-Horovitz, K.* Single-crystal layers of germanium semiconductors. 1031.
- Beckerley, J. G. s. Wye, van R. F.* 2013.
- Beckett, F. Taub, D. M. and Renwick, W.* Design method for direct-coupled flip-flops. 1880.
- Becking, A. G. Th., Groendijk, H. and Knol, K. S.* Noise factor of four-terminal networks. 488.
- Beckman, Olof.* Relative intensities of the X-ray K lines of heavier elements. 2049.
- Beckmann, Wolfhard.* β -Zerfall des natürlichen Aktiniums: Zerfallsschema und β -Spektrum. 570.
- Beckzoy, J.* Hydraulische Regler. 908.
- Bedard, F. and Meissner, H.* Contact resistance between superconductors and normal conductors. 1648.
- , *F. D. Gallagher, J. J. and Johnson, C. M.* Microwave measurement of D_0 for CO. 436.
- Bedell, H. M. and Rozsa, J. T.* Transient. 163.
- Bederson, B. s. Hammer, J.* 779.
- Bedewi, F. A. El and Wahab, M. A. El.* Investigation of the neutron groups from the disintegration of phosphorus by 8 MeV deuterons. 75.
- Bedford, R. E. and Crocker, A. M.* Hyperfine structure of mercury extracted from neutron-irradiated gold. 1351.
- , — Spectra of arsenic. 620.
- Bedinger, J. F s. Corman, A.* 1703.
- Bedo, D. E. and Tombouliau, D. H.* Soft X-ray emission spectrum of germanium. 1397.
- , — Dispersion electrons and refractive index in the soft X-ray region. 1464.

- Bedo D. E. and Tombouliau, D. H. Intensity distribution among spectral orders in a grazing incidence spectrograph. 1883.
- s. *Sprague, G.* 1679.
- Beenakker, J. J. M. s. *Meijenberg, van den C. J. N.* 262.
- , A. C., Chase, M. N. and Choquard, P. F. Extension of *McDougall-Stoner* tables of the *Fermi-Dirac* functions. 1090.
- s. *Harman, T. C.* 134, 1035.
- s. *Willardson, R. K.* 128, 471.
- Beer, Hermann. Calculo aproximado de las con armadura cruzada. 2215.
- , M. Quantitative interpretation of infra-red dichroism in partly oriented polymers. 2441.
- Begemann, F. and Houtermans, F. G. Herstellung einer Radium-D-E-F-Standard-Lösung. 237.
- Beggs, William C., Robinson, Berol L. and Fink, Richard W. Gamma rays in the decay of barium-131. 1582.
- Beghian, L. E., Hicks, D. and Milman, B. Gamma-rays from inelastic scattering of D-T neutrons from carbon 12 and oxygen 16. 243.
- , —, — Inelastic scattering of 2.5 mev neutrons by ^{54}Fe and ^{56}Fe . 237.
- , —, — Inelastic scattering of 2.5 MeV neutrons by chromium, manganese and vanadium. 1781.
- Beguin, Gilbert and Fajans, Kasimir. Influence of charge distribution on repulsive forces and internuclear distances between ions. 1006.
- Begun, S. J. Magnetic recording. 2304.
- Behar, M. F. Speed measurement and control. 197.
- Pressure and vacuum. 542.
- Behr, A. und Tripp, W. Polarisation des Sternlichts in einem Gebiet interstellarer Wolken filamentartiger Struktur. 351.
- Behr, v. J. und Marschall, H. Dem modifizierten *Coulomb-Feld* angepaßte Erweiterung des *Bornschen* Verfahrens. 1164.
- Behrends, R. E., Finkelstein, R. J. and Sirlin, A. Radiative corrections to decay processes. 1528.
- , — Radiative corrections to decay processes. 1716.
- s. *Finkelstein, R. J.* 47, 941.
- Behrendt, Klaus. Die bei schnell rotierenden Kreisel in einem Magnetfeld entstehenden magnetischen Polpaare und die Mißweisungen, die sich bei einem Vermessungskreisel daraus ergeben. 352.
- Behrens, H. und Rössler, F. Überschallflammen durch Sekundärverbrennung von Raketenstrahlen in Luft. 1506.
- Behrndt, K. *Siegfried Valentiner* 80 Jahre 1489.
- Behrson, R. s. *Das, T. P.* 1500.
- Beirne, T. and Hutcheon, J. M. Shape of ground petroleum coke particles. 2099.
- Beischer, D. E. Influence of stress and other factors on the structure of urinary colloids. 1902.
- Beiser, Arthur. Zenith-angle variation of cosmic-ray meson intensity. 427.
- s. *Soberman, R. K.* 249.
- Belcher, E. H. Scintillation detectors in medical and biological research. I. 2342.
- Belda s. *José Montojo.* 684.
- Belen'kji, S. Z. and Landau, L. D. Hydrodynamic theory of multiple production of particles. 2349.
- Belger, Ernst. Messung und Bewertung von Störgeräuschen. 377.
- Belinfante, F. J. Bending of light and falling rotators. 1294.
- Flat picture of curved space. 360.
- Emission of negative-energy gravitons by matter. 1710.
- and Swihart, J. C. Quantized linear theory of gravitation. I. 1710.
- s. *Swihart, J. C.* 1710.
- Deficiency of the phenomenological theory of the *Lamp* shift. 620.
- Use of the flat-space metric in *Einstein's* curved universe, and the Swiss-Cheese model of space. 1493.
- Beljers, H. G. *Faraday* effect in magnetic materials with travelling and standing waves. 1244.
- Bell, Barbara and Glazer, Harold. Geomagnetism and the emission-line corona. 885.
- , D. A. Distribution function of semiconductor noise. 1247.
- , E. E., Burnside, Phillips B. and Dam, C. F. Infrared emission from flames. 1744.
- s. *Burnside, Phillips B.* 1882.
- , G. M. Statistical thermodynamics of regular ternary solutions. 1970.

- Bell, J., Davidson, J. A. B. and Phillips, E. T. A.* Developments in photo-teleggraphy and facsimile transmission. 1879.
- , *J. S.* Focusing principle applied to the proton linear accelerator. 1985
- , *R. E.* Measurement of (p, xn) cross sections in bismuth. 1770.
- , *Graham, R. L. and Yaffe, L.* Thermal neutron capture cross section of Au^{118} and the half-life of Au^{199} . 1351.
- *s. Graham, R. L.* 1548.
- , *R. P. and Long, D. A.* Polarizability and internuclear distance in the hydrogen molecule and molecule-ion. 782.
- , *S. and Schaaf, S. A.* Free molecule flow of a nonuniform gas. 375.
- Bellamy, E. H. and Smith, K. F.* Nuclear spins and magnetic moments of ^{24}Na , ^{42}K , ^{86}Rb , ^{131}Cs and ^{134}Cs . 2008.
- , *L. J. and Branch, R. F.* Infra-red spectra of fluorinated hydrocarbons. 1403.
- Bellemans, A. s. Prigogine, I.* 1009.
- Belliboni, G. s. Baldo, M.* 393.
- Belousov, A., Kucenko, A. and Tamm, E.* Photoproduction of π^0 -mesons from deuterium. 2003.
- Belrose, J. S.* Ferromagnetic loop aerials for kilometric waves. 681.
- Bemski, G.* Lifetime of electrons in p-type silicon. 1651.
- Benczer, N., Farelly, B., Koerts, L. and Wu, C. S.* Investigation of I^{128} . 1159.
- , —, —, — I^{128} . 2367.
- *s. Farelly, B.* 1161, 1560.
- *s. Lidofsky, L.* 1162, 1358.
- Bendel, W. L., Toms, M. E. and Tobin, R. A.* Photoproduction of $\text{Pb}^{207\text{m}}$. 2013.
- Bender, D.* Lebensdauerprüfung metallischer Heizleiter. 864.
- , *R. S. s. Levine, S. H.* 54.
- Bendt, P. J. and Scott, F. R.* Short-period delayed neutrons from fission. 56.
- Béné, G. s. Geneux, E.* 97.
- *s. Cagnac, Bernard* 815.
- *s. Manus, Claude* 815.
- , *G. J. s. Grivet, P.* 1917.
- and *Extermann, R. C.* Paramagnetic resonance in low fields. 1643.
- Benecke, Otto.* Vorgeschichte der Kaiser-Wilhelm-Gesellschaft. II. 2256.
- Benedek, G. B., Paul, W. and Brooks, H.* Pressure dependence of the resistivity, Hall effect, and magnetoresistance in germanium. 2122.
- Benedek, G. B., Paul, W. and Brooks, H.* Conductivity, Hall effect, and magnetoresistance in n-type germanium and their dependence on pressure. 1859.
- Benedict, F. D.* Angular distribution of gamma rays in *Coulomb* excitation from Pt. 1569.
- and *Tice, G.* Angular distribution of gamma rays in *Coulomb* excitation. 1569.
- , *Daitch, P. B. and Breit, G.* Semi-classical approximation to *Coulomb* excitation integrals. 1569.
- *s. Breit, G.* 1569.
- *s. Daitch, P. B.* 82.
- , *W. S., Bass, Arnold M. and Plyler, Earle K.* Flame-emission spectrum of water vapor in the 1.9-micron region. 253.
- , *Moore, G. E. and Silverman, S.* Collision line widths and shapes in the vibration-rotation bands of HCl. 1814.
- Beneking, Heinz.* Kennwerte von Transistoren. 477.
- Benenson, R. E.* Energy levels in N^{14} and C^{14} from deuteron bombardment of C^{13} . 51.
- , *Shurman, M. B. and Haerberli, W.* Gas recoil fast neutron spectrometer. 38.
- Benesch, Reinhold s. Benesch, Ruth E.* 2221.
- , *Ruth E. and Benesch, Reinhold.* Enzymatic removal of oxygen for polarography and related methods. 2221.
- Benford, James R. and Butterfield, John V.* Photomicrographic lenses. 1062.
- Benito, J. L. Gutierrez.* Begriff und Dimensionen der absoluten und kinematischen Viskositäten. 1102.
- Benjamin, Ben s. Burrus, Charles A.* 786.
- *s. Livingston, Ralph* 436.
- Benner, A. H. and Drenick, R. F.* Optimum dedection of pulsed signals in noise. 1672.
- Bennett, A.* Measurements of the distribution of velocities in potassium molecular beams. 1391.
- , *C. O. and Smith, J. M.* Thermodynamics. 921.
- *s. Spitzer, W.* 1031.
- , *F. D.* Effect of random errors in fringe shift on interferogram reductions of axi-symmetric flows. 18.

- Bennett, A. and Carter, W. C.* Interferometric analysis of flow around small caliber projectiles. 20.
- *s. Kahl, G. D.* 157.
- , *H. E. s. Rank, D. H.* 1063.
- , *J. A. and Weinberg, J. G.* Fatigue notch sensitivity of some aluminium alloys. 2546.
- , *J. E. and Ingram, D. J. E.* Paramagnetic resonance spectrum of chlorine dioxide. 816.
- , *Jean M. s. Rank, D. H.* 1678.
- , *Robert B. s. Ch'en, Shang-Yi.* 1818.
- , *W. s. Marder, S.* 1331.
- , *Williard H.* Nuclear reactions between heavy nuclei. 557.
- Self-focusing streams. 1179.
- , *W. R., Curtiss, H. E. and Rice, S. O.* Interchannel interference in FM and PM systems under noise loading conditions. 2501.
- Bennewitz, Kurt* zum 70. Geburtstag. 1489.
- Bennington, T. W.* Observations of the effects of ionospheric storms over a North Atlantic Circuit. 2245.
- Benny, A. H. B. and Champion, F. C.* Neutron bombardment of counting diamonds. 1324.
- Benoist, Pierrette.* Aspects de la théorie de l'émission α . 771.
- Benoist-Gueutal, P.* Étude de l'énergie de réorganisation du cortège électronique dans les phénomènes de radio-activité β et α . 1791.
- Effets du cortège électronique dans des désintégrations beta et la capture e . 2031.
- Benoit, H.* Application de la mesure de la dépolarisation de la lumière diffusée à l'étude des interactions dans un fluide. 1255.
- Etude de la dépolarisation de la lumière diffusée par les chaînes moléculaires. 801.
- *s. Marchal, Jean* 636. 802.
- , *René s. Néel, Louis* 2463.
- Bensasson, René et Prevot-Bernas, Annette.* Polymérisation radiochimique de l'acrylonitrile en solution et distribution spatiale des centres actifs primaires. 1836.
- Bense, Max.* Philosophie der Technik. Fazit einer Disziplin. 2272.
- Benson, C. B. and Hallett, A. C. H.* Damping of oscillations of a sphere by liquid helium II at large amplitudes 1009.
- Benson, F. A. and Lusher, G. V. B.* Coaxial standing-wave indicator for frequencies near 10000 Mc/s. 151.
- and *Mayo, G.* Impedance-frequency variations of glow-discharge voltage-regulator tubes. 309.
- *s. Attree, V. H.* 307.
- , *G. C. s. Hoff, B. M. E. van der* 444.
- *s. Schreiber, H. P.* 1940.
- , *Sidney W. and Srinivasan, R.* Effect of temperature on the sorption of polar gases by proteins. 1967.
- , *Copeland, Charles S. and Pearson, David.* Molar volumes and compressibilities of the system NaCl-H₂O above the critical temperature of water. 28.
- Bent, R. D., Bonner, T. W. and McCrary, J. H.* Nuclear pairs from the 3,4-Mev state in Ca⁴⁰. 1364.
- , — and *Sippel, R. F.* Pair spectrometer measurements of the radiations from excited states of light nuclei. 970.
- , —, — Energy levels in C¹⁴ and N¹⁴. 1784.
- , —, *T. W., McCrary, J. H. and Ranken, W. A.* Gamma rays from the reactions Be⁹ (α , n γ), C¹², C¹³ (d, p γ) C¹¹, N¹⁴ (d, p γ) N¹⁵ and N¹⁴ (d, n γ) O¹⁵. 1581.
- , —, — Gamma rays from the deuteron bombardment of Al²⁷ and P³¹. 1581.
- , —, —, *Sippel, R. F.* Gamma radiation from the deuteron bombardment of N¹⁴. 1164.
- , —, —, *Ranken, W. A. and Sippel, R. F.* Gamma rays from the deuteron bombardment of Be⁹, B¹⁰, N¹⁴, and F¹⁹. 1556.
- Bentley, George P. s. Engel, Philip M.* 2194.
- Benz, Friedrich.* Fünfzig Jahre drahtlose Telephonie. 2256.
- Benzie, R. J., Cooke, A. H. and Whitley, S.* Interaction effects in some paramagnetic salts. 817.
- Benzing, R. O. s. Hudgens, J. E.* 1982.
- Benzler, H.* Zustandsgleichung von *van der Waals*. 2314.
- Berberet, J. A. and Clark, K. C.* Resonance irradiation of mercury vapor in nitrogen. 1614.
- Berditschewsskij, M. N. und Sawadsskaja, T. N.* Bildung eines elektrischen Feldes in der Erde. 1087.

- Berencz, F.* Analyse der Absorptionskurven. 2192.
- Calculation of the energy of the hydrogen molecule. 2406.
- Bérényi sen., D. s. Szalay, A.* 1519.
- Beretta, E. e Poiani, G.* Efficienza di rivelazione dei fotoni a mezzo di scintillatori liquidi. 555.
- , *L., Clementel, E. and Villi, C.* Phase shift analysis of 240-Mev proton-proton scattering. 1377.
- Berg, H. s. Schwabe, K.* 140, 2323, 2324.
- Polarographische Reaktionsgeschwindigkeitsmessungen und thermodynamisches Potential. 2485.
- , *Lothar.* Abschätzung von *Mathieu*. 372.
- , *Otto E.* Day sky brightness to 220 km. 2583.
- , *Paul W. s. Turner jr., Alfred* 2082.
- , *Roy A. and Wilets, Lawrence.* Nuclear surface effects. 1532.
- , *Stig s. Gralén, Nils* 1899.
- , *T. G. Owe.* Application du modèle de l'atome libre à l'atome métallique. 258.
- Chaleur de neutralisation en solution aqueuse diluée. 747.
- Thermodynamique des processus électrochimiques. 827.
- Théorie de la conductivité électrolytique des solutions aqueuses d'acides. 2140.
- Potentialmessungen an Eisen in Salpetersäure. 2142.
- , *van den C. B. and Brinkman, H.* High luminosity spectrometry in the soft X-ray region. I. 856.
- Bergdolt, V. E., Greenwald, A. J. and Sleator, D. B.* Model firing range: pressurized range for small caliber projectiles in free flight. 20.
- Berge, Ralph I. and Guderjahn, Charles A.* Recording fluxmeter. 1209.
- Bergen, A. R. s. Ragazzini, J. R.* 1669.
- Bergen, J. A. van s. Blink, W. P. van den* 511.
- Bergeon, René s. Lacam, André* 1734.
- Berger, Abraham W. s. Brown, Callaway.* 1112.
- , *B.* Bridge earthing device. 2100.
- , *E. s. Graham, C. H.* 700.
- , *E. R.* Wurzeln der charakteristischen Gleichung für kreiszylindrisches Rohr. 919.
- Berger, Abraham W.* Dirac delta function and the summation of *Fourier* series. 1707.
- , *J.* Réalisation de parois poreuses et étude de l'écoulement de l'air à travers ces parois. 2289.
- , *Martin J. and Doggett, John A.* Monte Carlo calculation of the response of *NaI(Tl)* scintillation spectrometers. 388.
- , *Walter.* Durchgang langsamer Elektronen durch Metallfolien. 1179.
- Berghaus, Hans.* Einfluß des Gasdrucks auf stille elektrische Entladungen. 1234.
- Bergman, G. D. and MacKay, D. M.* High-speed waveform-sampling circuit. 1668.
- Bergmann, E.* Steuerung von Lichtbogen-Schweißgeräten. 2549.
- , *E. D., Hoarau, J., Pacault, A., Mme Pullman, A. et Pullman, B.* Recherches expérimentales et théoriques sur l'anisotropie diamagnétique des composés aromatiques non-benzénoides et des systèmes quinoniques. 278.
- , *Peter G. Peierls,* introduction of canonical transformations into the *Lagrangian* formalism. 362.
- Self-consistency of *Lagrangian* quantization. 363.
- Existence of *Dirac* generating functions. 1494.
- Quantum theory of gravitation. 1710.
- and *Goldberg, Irvin.* Transformations in phase space and Dirac brackets. 5.
- , — *Dirac* bracket transformations in phase space. 1494.
- *s. Lebowitz, Joel.* 33.
- *s. Newman, Ezra.* 1711.
- *s. Thomson, Robb M.* 363.
- Bergna, Horacio E. s. Gaudin, A. M.* 231.
- Bergstedt, B. A.* Application of the electrostatic precipitator to the measurement of radioactive aerosols. 2576.
- Bergstrahl, T. A., Dunning, K. L., Durand, E., Ellison, C. H., Howerton, H. K. and Slavin, W.* Portable 250-kilovolt accelerator. 389.
- Bergström, I. s. Passell, T. O.* 770.
- Berlin, Martha J. and Butler, Keith H.* Measurement of particle size distribution of phosphors. 167.
- Beringer, R. s. Quinton, A. R.* 1056.
- and *Heald, Mark A.* Electron spin magnetic moment in atomic hydrogen. 429.

- Beringer, R. s. Heald, Mark A.* 621.
- Berk, A. D. and Lengyel, B. A.* Magnetic fields in small ferrite bodies with applications to microwave cavities containing such bodies. 2510.
- Berl, W. G., Rice, J. L. and Rosen, P.* Flames in turbulent streams. 2329.
- Berlad, A. L.* Flame quenching by a variable-width rectangular-channel burner as a function of pressure for various propane-oxygen-nitrogen mixtures. 2327.
- Berlin, T. H. s. Ford, J.* 367.
- Berlincourt, Ted G. De Haas-van Alphen* effect in arsenic. 1848.
- and *Steele, M. C.* Oscillatory Hall effect, magnetoresistance and magnetic susceptibility of a graphite single crystal. 133.
- *s. Overton jr., W. C.* 1427.
- Berman, A., Saur, A. J. and McMahon, B.* Mercury contact slip rings for low-level signal applications. 1638.
- *A. I. s. Brown, K. L.* 1384.
- *s. Niestlie jr., John W.* 1594.
- *s. Barber, W. C.* 1799.
- *Abraham S.* Laminar flow in channels with porous walls. 375.
- , *R. and Poulter, J.* Specific heat of diamond at low temperatures. 24.
- and *Simon, Sir Francis.* Graphite-diamond equilibrium. 445.
- , *Foster, E. L. and Ziman, J. M.* Thermal conduction in artificial sapphire crystals at low temperatures. I. Nearly perfect crystals. 1318.
- Bernard, Michel-Yves.* Principe de la théorie du mouvement des ions dans les accélérateurs linéaires. 40.
- Influences de la variation de l'amplitude du champ accélérateur sur le mouvement des ions dans les accélérateurs linéaires. 40.
- , *Pierre.* Amplification des séismographes dont la période est allongée par condensateurs. 1085.
- , *R. and Salvat, M.* Korrektur der chromatischen Fehler bei der Elektronenbeugung. 690.
- , *W. B.* High-stability oscillators. 1248.
- , *W. J. s. Haendler, H. M.* 800.
- Bernas, R. et Beydon, J.* Séparation des isotopes du technetium et identification du nombre de masse d'une transition isomérique de 390 keV. 2008.
- Bernas, René s. Valladas, Georges* 2382.
- Berndt, Sune B.* Drag of slender bodies at Mach number one. 2291.
- Bernet, A. et Chastel, M. R.* Méthode de développement rapide d'émulsions nucléaires épaisses par l'amidol acide. 1120.
- Bernier, J. P., Johns, H. E. and Cormack, D. V.* Calorimetric method for the direct determination of the energy locally absorbed in an irradiated material. 619.
- *s. Johns, H. E.* 2397.
- Bernolák, K.* Wandstärkemeßgerät für Glasrohre. 865.
- Bernstein, E. M. and Lewis, H. W.* Internal conversion electrons from electric excitation. 1794.
- , — First excited state of Mn⁵⁵. 2028.
- , — Internal conversion electrons from electric excitation of Ta¹⁸¹, Au¹⁹⁷ and Pt¹⁹⁵. 2373.
- , *H. and Kingston, R. H.* Photomultiplication at the surface of germanium. 2127.
- , *J. and Klein, Abraham.* Exchange current effects in the two-nucleon system. 8.
- , — Electromagnetic properties of the deuteron. I. Charge density and quadrupole moment. 1763.
- , *Richard B. s. Gordus, Adon A.* 2061.
- , *S. s. Dabbs, J. W. T.* 1348, 1534.
- *s. Wilkinson, M. K.* 469.
- , *Seymour s. Allen, R. G.* 419.
- *s. Sherwood, J. E.* 1378.
- *s. Stanford, C. P.* 1348.
- , *W., Brewer jr., H. G. and Robinson, W.* Proportional counter X-ray spectrometer. 314.
- , *Weiss, J. and Kuper, J. B. H.* Oxidation yield of the ferrous sulfate dosimeter by X-rays. 173.
- *s. Weiss, J.* 1393.
- Berroth, A.* Bestimmung der Schwingungszeit eines Pendels durch Ausmessung und Ausgleichung einer ganzen Koinzidenzkurve. 2237.
- Berry, Chester R.* Physical defects in silver halides. 447.
- Changes in KCl lattice dimensions by soft X-rays. 1407.
- , *Clifford E.* Ion trajectories in the omegatron. 388.
- , *H. W.* Scattering of fast neon atoms in neon gas. 1395.

- Berry, J. P.* Sensitive null-point manometer. 1722.
- , *Paul J s. Burton, Milton.* 555.
- Bershadler, D and Wachtell, G. P.* Boundary layer optics in two-dimensional gas flow interferometry. 17.
- Berson, I. Ss.* Grenzgeschwindigkeiten in einigen metamorphen und kristallinen Gesteinen. 1086.
- , *Solomon A. s. Yalow, Rosalyn S.* 340.
- Berstein, Irving A. s. Farmer, Earle C.* 227.
- Bertanza, L., Martelli, G. and Zacutti, A.* Operation conditions of a bubble chamber. 554.
- Bertaut, E. F.* Ordre des lacunes dans la pyrrhotine. 1211.
- et *Durif, A.* Non-existence du composé $\text{Fe}_4(\text{TiO}_4)_3$. 1810.
- , *Félix et Blum, Pierre.* Etude des boursures de chrome. 105.
- Bertein, F.* Aberrations des images électroniques des cathodes émissives imparfaites. 2076.
- Représentation des lentilles optiques ou électroniques par des quadripôles formés de résistances pures. 165.
- Bertele, von H. and Tucker, R.* Design of high-voltage high-power mercury-arc converters. 1873.
- Berthet, Ginette.* Résonance paramagnétique électronique. 1642.
- , *H. et Rossel, J.* Étude de la réaction $_{17}\text{Cl}^{35}_{(\text{nth}, \text{p})}$ $_{16}\text{S}^{33}$ par émulsion nucléaire spéciale au chlorure d'argent. 762.
- Berthier, G. s. Mayot, M.* 279.
- , *Gaston s. Pullman, Bernard* 626.
- Berthold, Hermann.* Psychologie der Farben- und Klangwelt. 2553.
- , *R.* Röntgen-Interferenzmessung mit Zählrohr-Goniometer. 1894.
- , *Rudolf und Gerold, Volkmar.* Verfahren zum Ausmessen letzter Debye-Scherrer-Linien mit dem Zählrohr. 2064.
- , *Wolfgang s. Rottgardt, K. H. Jürgen* 166, 862.
- Bertolini, Fernando.* Problema di Cauchy per l'equazione di Laplace in due variabili indipendenti. II. 1091.
- , *G., Bettoni, M. and Lazzarini, E.* Angular correlation of scattered annihilation radiation. 937.
- , —, — ^{160}Tb decay. 2025.
- , —, — Gamma-gamma angular correlation in ^{46}Ti . 2032.
- Bertotti, B.* Motion of charged particles in general relativity. 716.
- Gravitational motion and Hamilton's principle. 2278.
- Bertrand, R., Caizergues, R. et Méricour, R.* Mouvement de l'humidité dans les mortiers. 337.
- Bertsch, Hans.* Maße und Kontrollen in der Uhrenindustrie. 903.
- Bertschmann, S.* Seetiefenmessungen mit einem Echolot-Apparat und ihre Ergebnisse. 2577.
- Berzins, Talivaldis und Delahay, Paul.* Methode für das Studium schneller Elektrodenreaktionen. 658.
- , — Electrochemical method for the kinetic study of fast adsorption processes. 2089.
- Bes, D. R. s. Mallmann, C. A.* 1579.
- Besford, H.* Radium alarm system. 347.
- Besirganjan, P. A. s. Andrejewa, N. S.* 1194.
- Besnainou, Mme Sylvette s. Roux, Mme Monique* 1811.
- Besse, Yvonne et Demarcq, Jean.* Essais sur divers produits susceptibles de servir de colles en optique. 2217.
- Besson, Jean et Mathé, Marguerite.* Etude expérimentale simplifiée du comportement électrochimique d'un métal. Cas particulier des ferro-siliciums en solution alcaline. 295.
- Bestelmeyer, Adolf* 80 Jahre 1489.
- Bester, Michiel J. s. Bok, J.* 2563.
- Bestul, A. B.* Composition of apparent shearing forces during shear degradation of polymers. 2080.
- Betchov, R.* Production of vorticity in isotropic turbulence. 915.
- Beth, Richard A. and Meeks, Wilkison W.* Magnetic measurement of torque in a rotating shaft. 2452.
- Bethe, H. A. and Hoffmann, F. de.* Meson-proton scattering phase shift analysis 89.
- , *Maximon, L. and Low, F.* Bremsstrahlung at high energies. 3.
- *s. Hoffmann, F. de* 90.
- Memorial symposium held in honor of *Enrico Fermi* at the Washington Meeting of the American Physical Society, April 29, 1955. 894.
- Nuclear constants in reactor design. 1127.
- Bethell, D. E. and Sheppard, N.* Infrared spectrum of the H_3O^+ ion in acid hydrates. 997.

- Bettencourt, J. T. de s. Booker, H. G.* 1245.
- Betteridge, W.* Alloys for use at high temperatures. 335.
- Betticher, André, Hardung, Victor und Maillard, Jules.* Elektronische Apparatur zur Messung der dynamischen Elastizität und Viskosität kautschukähnlicher Körper. 696.
- Bettoni, M. s. Bertolini, G.* 937, 2025, 2032.
- Betts, D. D. and Jackson, J. D.* Double electron capture by alpha particles in helium. 1167.
- Beun, J. A., Steenland, M. J., Klerk, de D. and Gorter, C. J.* Magnetic properties of potassium chromium alum below 1°K. 2462.
- Beurle, R. L.* Comparison of the noise, and random frequency and amplitude fluctuations in different types of oscillator. 1877.
- Bevan, A. R.* High-frequency discharges localized along tracks of ionizing particles. 231.
- Bevans, Jerry T. s. Gier, Joseph T.* 1885.
- Beydon, J. s. Bernas, R.* 2008.
- Beyer, Karl-Heinz.* Entwicklung eines Anzeigergerätes für explosionsgefährliche Gasgemische auf der Basis der Dichtemessung. 1098.
- Beyster, J. R., Henkel, R. L. and Nobles, R. A.* Inelastic collision cross sections at 1.0-, 4.0-, and 4.5-Mev neutron energies. 605.
- , —, *Nobis, R. A. and Kister, Y. M.* Inelastic collision cross sections at 1.0-, 4.0- and 4.5-Mev neutron energies. 1381.
- Bez, W. and Höcker, K.-H.* Theorie des Anodenfalls. III. Äquipotentialflächen vor der Lichtbogenanode. 672.
- , *s. Höcker, K.-H.* 672.
- Bezemer, C. and Schwarz, N.* Equation for the size distribution of emulsion particles. II. Validity of the equation. 1636.
- *s. Schwarz, N.* 1636.
- Bezine, M. s. Wetzel, J.* 690.
- Bezold, Dieter von.* Vorgänge in der Gasentladung beim spektrochemischen Nachweis von Nichtmetallen durch Anregung mit Ultrakurzwellen nach *Gutterer und Frodl.* 2526.
- Bzruglyij, P. A. s. Galkin, A. A.* 1853.
- Bezzi, S. s. Croatto, U.* 2067.
- Bhadra, T. C. s. Chatterjee, S. D.* 1241.
- Bhagavantam, S.* Elastic properties of single crystals and polycrystalline aggregates. 1100.
- Bhalla, M. S. s. Hariharan, P.* 2100.
- Bhat, T. R. s. Mohanty, S. R.* 2165.
- Bhatia, A. B.* Vibration spectra and specific heats of cubic metals. I. Theory and application to sodium. 441.
- Minimum in the electrical resistance of metals at low temperatures. 1851.
- and *Horton, G. K.* Vibration spectra and specific heats of cubic metals. II. Application to silver. 1193.
- Bhatnagar, R. P. s. Shukla, R. P.* 2287.
- Bhattacharya, Amal K.* Use of gold as a hydrogen electrode. 2141.
- and *Jha, J. B.* Use of gold electrode in quinhydrone system and its comparative study with platinum electrode in some titrations. 2141.
- Bhattacharyya, Bimal Krishna.* Electromagnetic induction in a two-layer earth. 2584.
- Bianchi, G. s. Piontelli, R.* 2146.
- Biber, C. Huber, P. und Müller, A.* Arbeit pro Ionenpaar von mehratomigen Gasen für Po- α -Teilchen. 974.
- Bichsel, H. and Mozley, R. F.* Range of protons in Be, Al, Cu, Ag and Au. 2033.
- Bickel, E.* Zweidimensionaler Wärmefluß in der Umgebung einer Werkzeugschneide. 2313.
- Bickerton, R. J. and Engel, von A.* Positive column in a longitudinal magnetic field. 2494.
- Bickford, jr., L. R. Pappis, J. and Stull, J. L.* Magnetostriction and permeability of magnetite and cobalt-substituted magnetite. 2463.
- , *R. G.* Feedback systems for the control of anesthesia. 697.
- Bieber, A. s. Briegleb, G.* 2150.
- Biedenharn, I. L.* Quantum calculation of *Coulomb* excitation. 242.
- and *Blatt, J. M.* Variation principle for eigenfunctions. 1294.
- and *Class, C. M.* Soluble problem in the theory of *Coulomb* excitation. 961.
- and *Simon, A.* Analysis of angular distribution data by electronic computers. 51.
- *Blatt, J. M. and Rose, M. E.* Properties of the *Racah* and associated coefficients. 1495.

- Biedenbarn, McHale, J. L. and Thaler, R. M.* Quantum calculation of Coulomb excitation. I. 1567.
- *Goldstein, M. McHale, J. L. and Thaler, R. M.* Quantum calculation of Coulomb excitation. II. Quadrupole excitation: numerical results. 1571.
- *s. Goldstein, M.* 1568.
- *s. Major, J. K.* 1576.
- Bielecke, A. J. s. Meister, A. G.* 1816.
- Bienfait, H. s. Blink, van den W. P.* 511.
- Bier, K. s. Becker, E. W.* 220.
- Bieri, H.* Hauptproblem bei konvexen Rotationskörpern. 1091.
- , *R. Everling, F. und Mattauch, J.* Leistungsfähigkeit des doppelfokussierenden Massenspektrographen. 1123.
- Bierlein, T. K.* Cathodic vacuum etching of uranium. 1894.
- Biermann, Arthur.* Application of the Poisson-Boltzmann equation to non-identical, charged particles. 1013.
- , *L.* Entstehung von Magnetfeldern in bewegten Plasmen. 2235.
- *Ursprung der Kosmischen Strahlung.* 2398.
- Bigeisen, Jacob and Wolfsberg, Max.* Temperature independent factor in the relative rates of isotopic three center reactions. 764.
- Bigelow, C. C. s. Cragg, L. H.* 1630.
- , *J. H. s. Aron, W.* 244.
- Bigg, P. H. s. Ambrose, D.* 1915.
- *s. Stone, N. W. B.* 904.
- Bigham, C. B. Allen, K. W. and Almqvist, E.* Energy levels of B^{12} , C^{12} , C^{13} and F^{21} . 1364.
- *s. Allen, K. W.* 1364.
- Bijl, D. and Pullan, H.* Measuring the thermal expansion of solids at low temperatures; thermal expansion of copper and aluminium and the Grüneisen rule. 1111.
- *s. Kainer, H.* 276.
- Bilby, B. A. Bullough, R. and Smith, E.* Continuous distributions of dislocations: a new application of the methods of non-Riemannian geometry. 1627.
- *s. Bullough, R.* 109.
- Bill, P. T. s. Woodward, L. A.* 1619.
- Billam, E. R. and Browne, I. C.* Characteristics of radio echoes from meteor trails. IV. Polarization effects. 1082.
- Billard, Paul.* Papillotage des séquences de trames en télévision. 1454.
- Billig, E.* Growth of monocrystals of germanium from an undercooled melt. 1407.
- Billings, Donald E. and Varsavsky, Carlos, M.* Absolute calibration of the climax intensity scale for coronal lines. 878.
- *s. Leighton, Hope I.* 2560.
- Billmeyer jr., Fred W.* Absorption-extrapolation light scattering method. 636.
- Bills, D. G. and Allen, F. G.* Ultra-high vacuum valve. 368.
- , — and *Carleton, N. P.* Measurement of the pumping speed of an ionization gauge. 1087.
- *s. Carleton, N. P.* 1097.
- Bina, Melvin J. Alexeff, Igor and Sanders, Richard M.* Evapor-ion pump developments. 906.
- Binder, D. and Sturm, W. J.* Equivalence of X-ray lattice parameter and density changes in neutron-irradiated LiF. 610.
- , — *Annealing process in neutron-irradiated LiF.* 1823.
- , *R. C. s. Thrasher, L. W.* 1308.
- Bing, C. F.* Theory of the photodisintegration of Li^6 . II. 406.
- Binge, Hans-Jost.* Vulkanismus und Intrusionen als Folge der Zeitabhängigkeit von κ in der Jordanschen Kosmologie. 884.
- Bingel, W.* Berechnung von Molekülintegralen bei kleinen Kernabstand. II. 2052.
- *Numerische Berechnung von Molekülintegralen bei kleinem Kernabstand.* 2052.
- Bingen, R. s. Prigogine, I.* 1009.
- Bingham, H. H. Keck, J. C. and Tollestrup, A. V.* Photoproduction of neutral mesons in H and D . 1343.
- Binnie, A. M. and Orkney, J. C.* Experiments on the flow of water from a reservoir through an open horizontal channel. II. Formation of hydraulic jumps. 735.
- and *Teare, J. D.* Experiments on the flow of swirling water through a pressure nozzle and an open trumpet. 1946.
- *s. Batchlor, G. K.* 736.
- , *W. P.* Crystal structure of indium bismuthide. 441.
- Biondi, Manfred A.* Infrared absorption of copper and silver at $4.2^\circ K$. 1213.

- Biondi, Manfred A.* Optical and infrared absorption of copper at 4.2°K. 1849.
- and *Chanin, Lorne M.* Deviations from Blanc's law of ionic mobilities: Ne^+ in neon-helium mixtures. 837.
- s. *Chanin, Lorne M.* 142, 837, 1233.
- s. *Rogers, William A.* 667.
- Birch, B. J.* Games with almost complete information. 1292.
- Bird, George R.* Estimation of absolute absorption intensities with a Stark-modulated microwave spectrograph. 787.
- Microwave spectrum of NO_2 . 1817.
- s. *Baird, Donald H.* 787.
- s. *Mockler, Richard C.* 1817.
- , *J. F. s. Christie, J.* 1054.
- , *J. R.* Neutrons emitted in the deuterium bombardment of carbon. 2009.
- and *Preston, M. A.* Study of nucleon forces with repulsive cores. I. Effect of cores of finite strength. 1350.
- , *L. s. Salter, D. C.* 2367.
- Bird, R. Byron, Spotz, Ellen L. and Hirschfelder, J. O.* Third virial coefficient for non-polar gases. 381.
- Birge, R. W. Peterson, J. R. Stork, D. H. and Whitehead, M. N.* Mass values of the K mesons. 1337.
- s. *Kerth, L. T.* 1336.
- *Haddock, Roy P. Kerth, Leroy T. Peterson, James R. Sandweiss, Jack Stork, Donald H. and Whitehead, Marian N.* Bevatron K-mesons. 1755.
- Birkenschenkel, H. Haefel, R. und Mezger, P.* Feldelektronenmikroskopische Beobachtungen an Kathoden mit kubisch raum- und kubisch flächenzentrierter Gitterstruktur. 484.
- Birkhoff, R. D. Blackstock, A. W. and Ritchie, R. H.* Mean free path for discrete electron energy losses in metallic foils. 1181.
- s. *Blackstock, A. W.* 1608.
- s. *Rohr, R. C.* 1370.
- Birkner, R. s. Balz, G.* 1277.
- Birks, F. T.* Spectrographic estimation of sub-microgram quantities of beryllium by the cathode layer technique. 1689.
- , *J. B.* First- der magnetic anisotropy constants of ferrites. 2456.
- , *L. S. and Brooks, E. J.* Applications of curved-crystal X-ray spectrometers. Microanalysis and simultaneous analysis. 168.
- Birks F. T. and Wing, A. B.* Aligning single crystals for X-ray diffraction. 104.
- Birman, Joseph.* Effect of overlap on electrostatic lattice potentials in ionic-crystals. 442.
- Calculation of electrostatic lattice potentials, including ionic overlap. 798.
- , *Joseph L.* Average crystal potential. 1193.
- Bond dipoles and piezoelectricity in zincblende semiconductors. 1241.
- Birnbaum, G. and Maryott, A. A.* Absorption in the low-frequency wing of the NH_3 inversion spectrum. 435.
- s. *Maryott, A. A.* 2052.
- and *Bussey H. E.* Amplitude, scale, and spectrum of refractive index inhomogeneities in the first 125 meters of the atmosphere. 2583.
- , *H. and Levy, M.* Internal friction of aluminium single crystals as a function of temperature. 2283.
- , *Milton. Harth, Erich M. Seren, Leo and Tobin, Ralph.* Determining betatron energy by activity ratios. 40.
- , *W. Crandall, W. E. Millburn, G. P. and Pyle, R. V.* Excitation function for $\text{C}^{12}(\text{D}; \text{p}, 2\text{n}) \text{C}^{11}, \text{C}^{12}(\text{He}^3; 2\text{p}, 2\text{n}) \text{C}^{11}$ and $\text{C}^{12}(\alpha; 2\text{p}, 3\text{n}) \text{C}^{11}$. 1769.
- s. *Barkas, Walter H.* 1528.
- Birr, E.-J.* Mechanismus der Stabilisierung photographischer Emulsionen. 690.
- Bischoff, H. s. Stackelberg, M. v.* 661.
- , *K. Sperschichtgleichrichter in der Röntgen-Technik.* 2175.
- Biscoe, J. s. Brackett, T. E.* 106.
- Bishop, Francis W.* Electron-microscope power monitor. 1686.
- Boat for collecting thin sections for electron microscopy. 1687.
- , *G. R. and Perez y Jorba, J. P.* Spins and parities of excited states of Ce^{140} and Sr^{88} . 957.
- *Grace, M. A. Johnson, C. E. Knipper, A. C. Lemmer, H. R. Perez y Jorba, J. and Scurlock, R. G.* Nuclear orientation of cobalt 57. 237.
- , *J. F. W.* Physics of clocks and watches. 10.
- , *R. E. D.* Graphical solution of transient vibration problems 198.
- Bisi, A. Germagnoli, E. and Zappa, L.* Solid scintillators for beta ray spectrometry. 1979.

- Bisi A., Terrani, S. and Zappa, L.* Radia-
tinos from ^{179}W . 2023.
- , —, — Unique first forbidden beta
spectrum of ^{89}Sr . 772.
- , *Germagnoli, E. Zappa, L. and Zimmer,
E.* Energy distribution and the emis-
sion probability of internal brems-
strahlung in ^{72}Ge . 411.
- Bisschop, M. C. s. Tollenaar, D.* 1504.
- Bisschops, J.* Viscosity diffusion, and
sedimentation of polyacrylonitrile
solutions. 2079.
- Biswas, Byomkesh, s. Palit, Santi R.* 1470.
- , *N. N. Ceccarelli-Fabbrichesi, L., Cecca-
relli, M., Gottstein, K. Varshneya, N. C.
and Waloschek, P.* Properties of τ^+ -
mesons. 2000.
- , *S. Peters, B. and Rama.* Scattering
measurements in nuclear emulsions
and their application to measuring the
charge of primary cosmic ray nuclei.
1801.
- , *S. N.* Many-body scattering problem
in momentum space. 773.
- *Fredholm* theory of the *Heitler's* integral
equation. 2261.
- Bitler, W. R. s. Coles, B. R.* 337.
- Bittel, H. und Voss, B.* Freie Weglänge
der Leitungselektronen in Kupfer.
1848.
- Bitter, F. and Waymouth, J. F.* Analysis
of the plasma of fluorescent lamps. I.
1442.
- *Davis, S. P. Richter, B. and Young,
J. E. R.* Optical studies of radioactive
mercury. 97.
- *s. Waymouth, J. F.* 1442.
- — Radiation temperature of a plasma.
840.
- Bitterlich, Wolfram s. Salpeter, Ernst W.*
2523.
- Bizouard, M. s. Doucet, Y.* 550.
- Bizzarri, R. s. Alexander, G.* 561.
- Bjerhammar Arne.* Application of calculus
of matrices to method of least squares.
With special reference to geodetic
calculations. 1721.
- Bjerklie, John W.* Combustor analysis
method evolved from basic flame
stability and fuel distribution research.
1952.
- Björnerud, E. K.* Ionization of cloud-
chamber tracks. 1976.
- Black, G.* Automatic design of optical
systems. 2530.
- , *R. M. s. Alexander, P.* 803.
- Blackett, J. H. s. Hawksley, P. G. W.*
2094.
- , *P. M. S. s. Amaldi, E.* 235.
- Blackie, J. and Littlefield, T. A.* Vacuum
wavelength measurements in the
ultra-violet spectrum of iron. 1396.
- Blackman, L. C. F.* Structure and mag-
netic properties of ferrites. 1473.
- and *Sherry, N. P. R.* Investigation of
the anomalous time-constant of cer-
tain iron deficient magnesium manga-
nese ferrites. 1898.
- Blackmore, W. R. s. Abrahams, S. C.* 791.
- Blackstock, A. W. Ritchie, R. H. and
Birkhoff, R. D.* Mean free path for
discrete electron energy losses in me-
tallic foils. 1608.
- *s. Birkhoff, R. D.* 1181.
- Blackwell, J. H., Fewer, D. R., Allen, L. J.
and Cass, R. S.* Audio-frequency cir-
cuit model of the one-dimensional
Schroedinger equation and its sources
of error. 1922.
- Blades, A. T. and Thode, H. G.* Branching
ratio of $\text{Kr}^{58\text{m}}$ from fission yield studies
954.
- Blaha, F.* Sechseckstrukturen in Ein-
kristallen. I. Ablagerung von Ver-
unreinigungen in aus der Schmelze
wachsenden Metallkristallen. 1073.
- und *Langenecker, B.* Dehnung von
Zink-Kristallen unter Ultraschallein-
wirkung. 2282.
- Blahová, Vera.* Zweite Arbeitskonferenz
dertschechoslowakischen Geophysiker.
1282.
- Blaine, Lamdin R. s. Plyler, Earle K.*
2409, 2532.
- Blair, G. Brumley, C. H. and Kreidl, N.
J.* Optical evaluation of dosimeter
glasses. 173.
- , *G. W. Scott., Hines, C. O., Bondi, H.
and Gold, T.* Relativity and indeter-
minacy. 1922.
- , *J. M. s. Hill, H. A.* 1790.
- *s. Stratton, T. F.* 977.
- , *J. S. s. Kertle, D. D.* 1588.
- Blaise, J., Chantrel, H., Giacomo, P. and
Jackson, D. A.* Selection of the separa-
tion of the plates of the *Fabry-Perot*
interferometer. 857.
- et *Chantrel, Henri.* Spin et moments
nucléaires du palladium 105. 2008.
- Blaisse, B. S. s. Bouwers, A.* 689.
- Blake, Norman W. s. McClure, Donald S.*
439.

- Blakewood, C. H. s. Dyba, R. V.* 448.
 — *s. Lane, C. T.* 1196.
 — *s. Mobley, R. C.* 1017.
 — *s. Wheeler, R. G.* 1828.
- Blamont, Jacques-Emile et Courtès, Georges.* Etude photométrique des émissions monochromatiques du ciel nocturne. 1284.
- Blanc, Ch. und Liniger, W.* Stochastische Fehlerauswertung bei numerischen Methoden. 1708.
 — *D. et Viste, R.* Coefficient de température et la stabilité thermique des compteurs de Geiger-Müller autocoupeurs contenant une vapeur organique 1974.
 — *Compteurs de Geiger-Müller à cathode externe de petit diamètre.* 1323.
 — *et Uebersfeld, Jean.* Rôle du constituant polyatomique dans les compteurs à cathode externe. 1974.
- Blanc-Lapierre, André, Perrot, Marcel et Péri, Georges.* Comparaison entre la transmission de l'information en optique et en radioélectricité. 33.
- Blanchard, D. C. and Newitt, D. M.* Bursting of bubbles at an air-water interface. 206.
- Bland, W. R. and Cooper, B. J.* High-speed precision tachometer. 196.
- Blankenagel, John C.* Lectures of the late Professor Benjamin W. Snow. 1919.
- Blanquet, P.* Calcul théorique du développement au cours du temps d'une réaction en chaînes ramifiées. 551.
 — *Calcul théorique du développement au cours du temps d'une réaction en chaînes ramifiées.* 752.
- Blanton, Elaine H. s. King, Gilbert W.* 1063.
- Blanusa, Danilo.* Espaces elliptiques plongés isométriquement dans des espaces euclidiens. I. Plan elliptique. II. Espaces elliptiques. 2259.
- Blaschke, W. S. S.* Differential correction of optical systems allowing large parameter changes. 2190.
- Blaser, J. P. s. Ashkin, J.* 424, 2395.
 — *s. Feiner, F.* 982.
- Blatt, F. J.* Effect of vacancies and interstitials on the electrical properties of copper. 1021.
 — *Influence of exchange and correlation on electron transport in metals.* 2111.
- Blatt, F. J., Huse, M. C. and Rubenstein, R. A.* Resistivity due to point imperfections in copper. 1214.
 — *J. M.* Theory of tracks in nuclear research emulsions. 1784.
 — *and Butler, S. T.* Superfluidity of an ideal Bose-Einstein gas. 1720.
 — *s. Biedenharn, L. C.* 1294, 1495.
 — *s. Lustig, Harry.* 1795.
 — *Integral equations for cascade showers.* 615.
- Blatz, Hanson s. Jetter, Evelyn S.* 2227.
 — *s. McLaughlin, James E. jr.* 702.
 — *s. Solon, Leonard R.* 173, 777.
- Blau, M.* Hyperfragments and slow K-mesons in stars produced by 3-Bev protons. 1996.
 — *and Caulton, Martin.* Inelastic scattering of 500-Mev negative pions in emulsion nuclei. 423.
 — *and Oliver, A. R.* Interaction of 750-Mev π^- mesons with emulsion nuclei. 2013.
- Bleakney, Walker s. Griffith, Wayland* 915.
- Bleaney, B.* Nuclear moments of the lanthanons from paramagnetic resonance 465.
 — *and Low, W.* Nuclear spins and ratio of magnetic moments of europium 151 and 153. 1642.
 — *Scovil, H. E. D. and Trenam, R. S.* Hyperfine structure in neodymium ethyl sulphate. 2108.
 — *s. Baker, J. M.* 465, 569, 2358.
- Bledsoe, M. D. and Szebehely, V. G.* Hydrodynamic impact of curved surfaces. 1951.
- Blet, G.* Interprétation électronique des phénomènes d'inertie dans les photopiles (en particulier capacité interne). 1655.
 — *et Ritti, Arlette.* Effet Hamaker-Beezhold. Etude détaillée du phénomène et des possibilités de le supprimer. 1863.
- Bleuler, E. and Morinaga, H.* Gamma rays from P^{31} , C^{131} and P^{30} . 1372.
 — *and Tendam, D. J.* Elastic scattering of alpha particles from Al and Cu. 1588.
 — *Elastic scattering of 19-Mev alpha particles by Al and Cu.* 1588.
 — *s. Blue, J. W.* 1386, 2027.
 — *s. Morinaga, H.* 964.
 — *s. Thieme, M. T.* 1562, 2383.
 — *K. und Terreux, Ch.* Schalenmodell für Atomkerne. 1345.

- Blevin, W. R., Brown, W. J. and Sarma, K. S.* Seasoning of tungsten filament incandescent lamps for use as photometric standards. 1256.
- Blevins, Gilbert S., Jache, Albert W. and Gordy, Walter.* Millimeter wave spectra of AsH_3 and AsD_3 . 786.
- *s. Jache, Albert W.* 786.
- , *M. E. s. Block, M. M.* 1521.
- *s. Fairbank, W. M.* 1976.
- Blewett, J. P., Christofilos, N. C. and Vash, A. M.* Four-pole permanent-magnet rings for focusing beams of charged particles. 1391.
- Blewett, M. Hildred.* Eddy-current phenomena in the cosmotron. 2346.
- Blewitt, T. H. Colman, jr. R. R. and Redman, J. K.* Structural defects in copper and the electrical resistivity minimum. 1850.
- Blin, Jean et Guinier, André.* Etude expérimentale des cavités submicroscopiques au sein des métaux écrouis. 2542.
- Blin-Stoyle, R. J.* Spin-orbit coupling and the density distribution in heavy nuclei. 235.
- Blink, van den W. P., Bienfait, H. und Bergen, van J. A.* Automatische Schweißung mit Contact-Schweißelektroden. 511.
- Blitzer, Leon.* Shifts and asymmetries in condensed spark spectra of electroplated electrodes. 2404.
- Blizard, J. L. B.* Fundamental research in the United States. 1.
- Bloch, Claude.* Field theories with non-localized interaction. 898.
- *et Messiah, Albert.* Limites de la polarisation d'un système atomique soumis à un champ radioélectrique. 1534.
- *et Rumpff, Paul.* Méthode cinétique de détermination spectrophotométrique du degré d'hydratation des aldéhydes. 2322.
- , *Ingram and Hsieh, Yü-Chang.* Spin-orbit interactions in many-body nuclear shell theory. 48.
- *s. Hsieh, Yü-Chang.* 1930.
- , *M. s. Sands, M.* 1525.
- Block, Myron J.* Interferometers. 495.
- , *M. M. and King, D. T.* Nuclear absorption of a fast charged hyperon. 937.
- , — Pairs formed by bremsstrahlung of great energy. II. Theoretical separation distribution. 1331.
- Block, Myron J., Harth, E. M. and Blevins, M. E.* Evidence for the β decay of neutral V-particles. 1521.
- — *and Sternheimer, R. M.* Energy distribution of K mesons produced in nuclei. 1339.
- , *King, D. T. and Wada, W.* Direct creating of electron pairs by electrons of great energy. III. Internal energy distributions. 42.
- , —, — Electron tridents between 0.1 and 10 Bev. 936.
- *Harth, E. M., Fowler, W. B., Shutt, R., P. Thorndike, A. M. and Whittemore, W. L.* Charged V particle production in a proton proton collision. 938.
- , —, —, —, — Production of heavy unstable particles in a p-p collision. 1753.
- *s. Harth, E. M.* 1522.
- *s. King, D. T.* 42, 1132, 1330.
- *s. Slaughter, G. G.* 1515.
- *s. Wada, W.* 42.
- Production of K mesons by protons of cosmotron energy. 1134.
- *and Jastrow, Robert.* $A^\circ - \Theta^\circ$ ratio in Pb and C. 1333.
- , *R. C. and Newson, H. W.* Total neutron cross sections in the kilovolt region: separated isotopes of nickel and cerium. 1362.
- , *Seymour.* Survey meter for soft betas in air. 1984.
- Blocker, H. G. s. Orr jr., Clyde* 1207.
- Blodgett, K. s. Gebbie, H. A.* 2132.
- Bloembergen, N. and Rowland, J. J.* Nuclear magnetic resonance in metals and alloys. 2462.
- Blondel, A. et Broquet, E.* Thulium 170 pour la gammagraphie des pièces en alliages légers. 2210.
- Blood, H. L. and Proctor, W. G.* Nuclear electric quadrupole interactions of B^{11} in kernalite. 1423.
- Bloom, Arnold L. and Shoolery, James N.* Effects of perturbing radiofrequency fields on nuclear spin coupling. 1847.
- , *David S.* Specific heat of the alloy FeNi_3 and of a sigma phase FeCr . 509.
- , *J. N. s. Chatterjee, S. D.* 2046.
- , *M. Hahn, E. L. and Herzog, B.* Free magnetic induction in nuclear quadrupole resonance. 2457.
- , *S. s. Kivel, B.* 1809.
- , *S. D. Glasoe, G. N., Muchlhouse, C. O. and Wegner, H. E.* Inelastic and elastic scattering of 1.7-Mev neutrons. 1383.

- Blosser, H. G., Goodman, C. D., Handley, T. H. and Randolph, M. L. 14-Mev (n, α) cross-section measurements. 1541.
- s. Cohen, B. L. 1770.
- s. Pettus, William G. 1599.
- Blount, Eugene, Callaway, Joseph, Cohen, Morrel, Dumke, William and Phillips, James. Infrared absorption of indium antimonide. 1652.
- , E. L. and Cole, A. R. H. Split drives for single-beam, infra-red spectrometers. 855.
- Blossom, D. E. s. Perry, R. W. 1951.
- Bludman, S. and Daitch, P. B. Validity of the Born-Oppenheimer approximation. 537.
- , Sidney A. and Ruderman, Malvin A. Radiative and nonradiative boson decay into leptons. 1521.
- Blue, J. W. and Bleuler, E. Decay of Sc^{44} . 1368.
- — Radioactivity of Sc^{44} . 2027.
- , Robert E. and Pollack, John L. Interferometer-schlieren instrument for aerodynamic investigations. 2525.
- Blüthgen, Friedrich. Pulsfrequenzmessung. 1639.
- Blum, Pierre s. Bertaut, Félix. 105.
- , Walter s. Raub, Ernst. 296.
- Blume, M. s. Treiman, S. B. 1083.
- Blumenfeld, H., Booth, E. T., Lederman, M. and Chinowsky, W. Production of unstable particles in carbon and lead by 2-Bev pions. 1132.
- Blumer, O. s. Perrier, A. 1853.
- Blunck, O. Reichweite schneller Elektronen. 2392.
- Blunden, W. R. Integrators for computers and control systems. 2263.
- Blunt, R. F., Frederikse, H. P. R. and Hosler, W. R. Properties of MgSn . 1224.
- Boardman, N. K., Palmer, A. R. and Heymann, E. Constitution of ionic liquids. III. Surface tensions of molten salts and their mixtures. 1012.
- Bocchieri, P. e Loinger, A. Formulazione hamiltoniana covariante della teoria classica dei campi. 719.
- , — Condizione supplementare del campo di Stückelberg. 1296.
- , — e Prosperi, G. M. Campi fermionici e metodo di quantizzazione di Feynman. 1925.
- Bockasten, Kjell. Study of CIII by means of a sliding vacuum spark. 1804.
- Bockelman, C. K., Braams, C. M., Buechner, W. W. and Guthe, D. B. Angular distribution of proton groups from $\text{Ca}^{42}(\text{d}, \text{p})\text{Ca}^{43}$ reaction. 1785.
- s. Jung, J. J. 68.
- s. Sperduto, A. 412.
- Bockris, J. O'M. Variation des vitesses de réaction à l'électrode avec le solvant. 2148.
- and Potter, E. C. Mechanism of hydrogen evolution at nickel cathodes in aqueous solutions. 2148.
- Parsons, Roger. 2483.
- s. Potter, E. C. 2487.
- s. Richards, N. E. 740.
- Bodansky, D. and Sachs, A. M. Interaction of 46 Mev π^+ mesons in deuterium. 1384.
- Boden, Brian P. s. Kampa, Elizabeth M. 890.
- Bodenlos, L. J. s. Walser, M. 1964.
- Bodewig, Claus s. Kranz, Jakob. 868.
- Bodiou, Georges. Relations entre la seconde quantification. Mécanique ondulatoire dans l'espace de configuration, et problèmes du second ordre en calcul des probabilités. 2268.
- Bodmann, Hans-Walter. Gerät zur automatischen Messung des Wollerschen Farbabstandes. 2556.
- , O. s. Schulz, G. V. 2522.
- Bodó, Zalán. Determination of quantum efficiency of luminescent powders by calorimetric measurement. 1070.
- Bodson, P. s. Dallemagne, M. J. 1273.
- Böcker, H. Netzstabilität, Leistungs- und Frequenzregelung. 1490.
- Böer, K. W. Elektronische Eigenleitung von Halbleitern. 2117.
- Photochemische Reaktionen in CdS -Einkristallen. 2478.
- und Vogel, H. Nichtstationäre Vorgänge in Photoleitern. I. Langzeitiges Anklingen der Photoleitung in CdS -Einkristallen als Methode zur Störtermanalyse. 2133.
- Borchardt, E. und Borchardt, W. Langzeitige Änderungen der elektrischen Leitfähigkeit von CdS -Einkristallen bei höheren Temperaturen und zusätzlicher optischer Anregung. Ein Beitrag zur Klärung des Leitfähigkeitsmechanismus. 2118.
- Boegehold, Hans. Geschichte der Zeissischen Mikroskopobjektive bis 1940. 311.

- Boegehold, Hans.* Gedächtnis an August Köhler. 2254.
- Andenken an Albert König. *16. 8. 1871, † 30. 4. 1946. 2254.
- Bøggild, J. s. Davies, J. H.* 763.
- , *J. K., Hooper, J. E. and Scharff, M.* Measurements on K-mesons. 2352
- , —, *Ortel, W. C. G. and Scharff, M.* Heavy meson events in stripped emulsions. 1757.
- Boehm, F. s. Marmier, P.* 72.
- *s. Murray, J. J.* 586.
- Böhm, Herbert.* Zählrohr als Element der Strahlungs-Meßtechnik. 2338.
- Böhme, Werner s. Barthelt, Hans.* 1893.
- Böhnecke, G., Friedrich, W., Errulat, F. und Jung, K.* Tagung der Internationalen Union für Geodäsie und Geophysik in Brüssel vom 20. August bis 2. September 1951. 2257.
- Deutsche Meeresforschung und ihre heutigen Aufgaben. 2576.
- Bölger, B. s. Gerritsen, H. J.* 2108.
- Boelhouwer, M. s. Aten, jr. A. H. W.* 2033.
- *s. Wapstra, A. H.* 2024.
- Bömmel, H. E.* Ultrasonic attenuation in superconducting lead. 1022.
- Boer, J. de.* Eenheden en normalisatie in de Physica. I. 190.
- *s. Cohen, E. G. D.* 2336.
- *s. Wageningen, R. van* 2008.
- Boerdijk, A. H.* Technical aspects of levitation. 1939.
- Boers, Y.* 4-channel carrier telephone system for the Argentine VHF radio links. 1053.
- Voice frequency telegraph equipment STR 114 for the Argentine telecommunications project, and adaptation of carrier equipment to this project. 1243.
- Boesch, W.* Rechnen mit komplexen Zahlen auf einer Multipliziermaschine mit nur einem Multiplizierwerk. 2263.
- Boesler, Johannes und Budruss, Reinhold.* Zeitlich veränderliche Wärmeströmung. Näherungsverfahren von E. Schmidt ausgedehnt auf Hohlzylinder und Hohlkugel. 2310.
- Boettcher, A.* Elektronenmikroskopische Untersuchungen an Glanzmetallen. 871.
- Böttcher, G. s. Drescher-Kaden, F. K.* 1828.
- Böttger, Otto.* Temperaturabhängigkeit der Austrittsarbeit von Elektronen an Metallen und Halbleitern. 1242.
- Bogaardt, M. s. Endt, P. M.* 2012.
- Bogačev, N. P. s. Meščerjakov, M. G.* 2035.
- Bogart, Donald.* Estimation of neutron energy for first resonance from thermal-neutron absorption cross sections. 2038.
- Bogle, G. S., Dodd, J. N. and Purser, K. H.* Back-Goudsmit effect in Hfs of Na^{23} $3\text{P}_{3/2}$ and the electric quadrupole interaction coefficient. 1612.
- Bogoljubov, N. N. and Širkov, D. V.* Charge renormalization group in quantum field theory. 2269.
- und *Subarew, D. N.* Wellenfunktion des Grundzustandes des Systems sich in Wechselwirkung befindlicher Bose-Teilchen. 190.
- Bohm, D. and Schiller, R.* Causal interpretation of the Pauli equation (B). 898.
- , — and *Tiomno, J.* Causal interpretation of the Pauli equation (A). 898.
- and *Vigier, J. P.* Model of the causal interpretation of quantum theory in terms of a fluid with irregular fluctuations. 3.
- , *H. V. s. Dunlap, W. C.* 1027.
- Bohr, Aage and Mottelson, Ben.* Moments of inertia of rotating nuclei. 2004.
- , *Niels and Lindhard, Jens.* Electron capture and loss by heavy ions penetrating through matter. 1164.
- Bohun, Antonín, Kapisková, Kveta und Dusková, Alena.* Exoelektronen-Emission bei Metallen. 149.
- Bok, B. J.* Astronomical problems connected with the 21-cm line. 517.
- , *J., Bester, Michiel J. and Wade, Campbell M.* Catalogue of H(II) regions in the Milky Way. Longitudes 250 bis 355°. 2563.
- Bol, Cornelius s. Goyan, Frank M.* 163.
- Bold, H. J. van den s. Rietjens, L. H. Th.* 2381.
- Boley, B. A.* Theory of lateral impact on beams. 14.
- Bolja, J. s. Chevallier, R.* 645, 646.
- Bolinder, E. Folke.* Fourier transforms in the theory of cathode-ray tubes. 851.
- Bolle, H.-J.* Lichtstarkes Abbildungsverfahren zur Messung von Differenzen absoluter Lichtphasen und seine Anwendung zur Bestimmung optischer Konstanten des Kaliums im ultravioletten Spektralbereich. 1066

- Bolliger, W. and Poretti, G. G.* Probenwechsler für automatische Radioaktivitätsmessungen (Sample changer). 1517.
- Bollinger, Loren, E.* 3C24 ionization gage. 1934.
- , *L. M., Coté, R. E. and Le Blanc, J. M.* Characteristics of the new Argonne fast neutron chopper. 1123.
- , *Dahlberg, D. A., Palmer, R. R. and Thomas, G. E.* Slow neutron resonances of manganese, bismuth, and selenium. 1564.
- , —, *Coté, R. E., Jackson, H. E. and Thomas, G. E.* Neutron transmission measurements at the new Argonne reactor, CP-5. 957.
- *s. Coté, R.* 1380.
- *s. Le Blanc, J. M.* 1383.
- Bolotin, Herbert H. and Wilkinson, Roger G.* Excited states of Hg¹⁹⁹. 1366.
- , *Pruett, Charles H., Roggenkamp, Paul L. and Wilkinson, Roger G.* Excited states of Ce¹⁴⁰. 1550.
- *s. Pruet, C. H.* 1365.
- Bolsterli, Mark and Feenberg, Eugene.* Matrix elements in superallowed transitions. 595.
- , — Perturbation procedure for bound states of nuclei. 2356.
- Boltzmann, Ludwig.* 2255.
- Bolz, Roy E. and Burlage jr., Henry* Influence of turbulence on flame propagation rates. 1965.
- Bonanomi, J. et Herrmann, J.* Etalon de fréquence à l'ammoniaque. 2451.
- Bonauguri, E. and Seniga, G.* Mechanismus der *Karl-Fischer*-Titration und eine neue Modifikation dieser Methode. 2275.
- Bond, W. L.* Making crystal spheres. 108.
- Bondarenko, W. W., Kwarzchawa, I. F., Pljutto, A. A. und Tschernow, A. A.* Metallwiderstand bei großen Stromdichten. 280.
- Bondelid, R. O. s. Fagg, L. W.* 2026.
- Bondi, H. s. Blair, G. W. Scott.* 1922.
- Bones, R.* Two-circle Geiger counter mounting. 1747.
- Bonet-Maury, P. et Patti, F.* Effets des rayonnements ionisants sur la catalase. 704.
- Bonetti, A., Dilworth, C., Ladu, M. e Occhialini, G.* Misura in lastre nucleari. 930.
- Bonetti, A., Setti, R. Levi, Locatelli, B. and Tomasini, G.* Mass and decay of K-particles. 2352.
- , *Panetti, M. e Rossi, G.* Spettro di energia degli elettroni di decadimento dei mesoni μ in emulsione nucleare. 1339.
- *s. Davies, J. H.* 763.
- Bonfiglioli, G., Coen, E. and Malvano, R.* Modulation of the electrical conductivity by surface charges in metals. 462.
- Bonhoeffer, K.-F.* Passivität des Eisens in sauren, neutralen und alkalischen Lösungen. 659.
- *s. Manecke, C.* 2326.
- Bonhomme, J.* Analyse quantitative par les spectres d'absorption infrarouge des poudres. II. Etude expérimentale. 859.
- Boni, A.* Artificial satellite, unification and mechanics (Sidar-mechanics). 1106.
- Bonifas, H.* Etude de quelques problèmes d'électrostatique. 814.
- Bonitz, E. und Förster, Th.* Lichtabsorption und Fluoreszenz aromatischer Amine in überalkalischer Lösung. 2207.
- Bonnaure, Pierre, Braffort, Paul, Pelchowitch, Israel et Weill, Jacky.* Pilotage automatique d'un réacteur nucléaire — application à la pile de Saclay. 1330.
- Bonnemay, M.* Courbe de polarisation et structure superficielle des électrodes. Cas de l'électrode de platine platiné. Etude expérimentale. 662.
- Effet de température des demi-éléments. 831.
- Etude de l'empoisonnement des électrodes à hydrogène. 2148.
- et *Fairbank, J.* Potentiels de jonction liquide/liquide présentés par certaines solutions de sels de cuivre à différentes températures. 2485.
- et *Vergnolle, J.* Etude expérimentale de l'électrolyse des solutions aqueuses de sulfate de cadmium en courant alternatif. 2486.
- Action du fluor sur les courbes des surtension d'hydrogène des électrodes de platine platiné. 2149.
- et *Royon, Jean.* Etude de la diffusion des ions à travers les revêtements électrolytiques. 831.
- et *Vergnolle, Jean.* Conductibilité des électrolytes forts vis à vis de champs alternatifs superposés. 2484.

- Bonnemay M., Makram, Helmy et Royon, Jean.* Etude de la diffusion des ions à travers les revêtements métalliques. 2073.
- Bonner, R. W. s. Bent, R. D.* 1784.
- , *T. W., Alba, F., Fernández, A. and Mazari, M.* Scattering of fast neutrons in Pb and Ag. 421
- , *Eisinger, J. T., Kraus, Alfred A. jr. and Marion, J. B.* Cross section and angular distributions of the (d, p) and (d, n) reactions in C^{12} from 1.8 to 6.1 Mev. 2011.
- *s. Bent, R. D.* 970, 1164, 1364, 1556, 1581.
- *s. Brugger, R. M.* 1143.
- *s. Harlow, M. V.* 1570.
- *s. Marion, J. B.* 1144, 1773.
- *s. Taylor, H. L.* 1596.
- Bonnet.* Mesures précises de fréquences entre 22000 et 37000 MHz. 273.
- , *Monique, Matricon, Marcel et Roubine Elie.* Etude à 10000 MHz de l'effet Faraday dans un plasma. 1055.
- Bonnier, E. s. Andrieux, J. L.* 2405.
- Bonnor, W. B.* Formation of the nebulae. 2236.
- Bonvallet, G. L. and Potter, S. M.* Measurement techniques for special noise problems. 207.
- Boog, W. s. Arlman, E. J.* 2432.
- Booker, H. G.* Level at which fading is imposed on waves reflected vertically from the ionosphere. 2574.
- and *Bettencourt, J. T. de.* Theory of radio transmission by tropospheric scattering using very narrow beams. 1245.
- Boomgaard, J. van den.* Zone-melting processes under influence of the atmosphere. 444.
- Zone-melting processes for compounds AB with a measurable vapour pressure under influence of the atmosphere. 2119.
- Zone-melting processes for pure compounds AB with a negligible vapour pressure. 2132.
- *Kröger, F. A. and Vink, H. J.* Zone melting of decomposing solids. 290.
- *s. Kröger F. A.* 2477.
- Boorse, H. A. s. Worley, R. D.* 1023.
- *s. Smith, Bernard,* 1195. 5604, 1196.
- Boosman, H. B. R.* Argentine telecommunication network. 1243.
- Booth, A. D.* Storage devices for high speed calculators. 536.
- *s. Mohanti, H. B.* 545.
- Cut-off phenomena of protein crystallography. 171.
- , *D. L., Preston, G. and Shaw, P. F. D.* Cross section and angular distributions of the D-D reactions between 40 and 90 keV. 1537.
- , *E. T. s. Blumenfeld, H.* 1132.
- , *J., Boyland, E. et Orr, S. F. D.* Etude spectroscopique de la nature des complexes des purines avec les composés aromatiques. 254.
- , *Rex s. MacGregor, M. H.* 1597.
- Boothroyd, A. R.* Design of electric wave filters with the aid of the electrolytic tank. 1056.
- Bopp, Fritz.* Beispiel aus der stochastischen Quantenmechanik. 717.
- Übergang von der mikrokanonischen zur kanonischen Gesamtheit mittels δ -Funktion. 384.
- Würfel-Brettspiele, deren Steine sich näherungsweise quantenmechanisch bewegen. 716.
- Quantenmechanische und stochastische Prozesse. 717.
- Natur der Wellen. 1093.
- Phasenraum-Darstellung der Quantenmechanik. 1924.
- Boquet, F. L. s. Meyer, R. A.* 1436.
- Bor, J.* Photographic method of measuring the dispersion of the optical constants of metals. 2522.
- Borasky, Rubin.* Extensible area specimen holder for RCA-EMU models electron microscope. 1686.
- Borchardt, E. s. Böer, K. W.* 2118.
- , *W. s. Böer, K. W.* 2118.
- Borchers, H. J.* Einheitliche Darstellung des Energie-Impuls- und Spintensors für beliebigen Spin. 1094.
- Borde, A. H. de and Massey, H. S. W.* Collisions of nucleons with deuterons. 243.
- *s. Chisholm, J. S. R.* 1513.
- Bordonì, Piero Giorgio.* Etat solide à haute température effectuées au moyen d'ultrasons. 1940.
- Borgars, S. J.* Meniscus thermometer for the measurement of small temperature differentials. 1957.
- Borgne, Eugène le s. Hénin, Stéphane* 278.
- Borgnis, F. E.* Bewegungsgleichung und Impulssatz in viskosen und kompressiblen Medien. 2289.

- Borgnis F. E.* und *Papas, Charles H.* Randwertprobleme der Mikrowellenphysik. 1289.
- Born, M.* Non-localizable fields and reciprocity. 1928.
- und *Hooton, D. J.* Statistische Dynamik mehrfach periodischer Systeme. 218.
- , 713.
- Continuity, determinism, and reality. 1289.
- Wesen des Atomzeitalters. 2347.
- and *Yang, L. M.* Nuclear shell structure and nuclear density. 2006.
- Borne, Heinrich von dem.* Windmessung auf akustischer Grundlage. 2580.
- Bornstein, L. A.* and *Fisher, L. H.* Formative time lags of positive point-to-plane corona in nitrogen and argon. 839.
- Borowitz, Sidney.* Perturbation calculation of the elastic scattering of electrons by hydrogen atoms. 992.
- Borrmann, G.* Vierfachbrechung der Röntgenstrahlen durch das ideale Kristallgitter. 2064.
- und *Wagner, H.* Absorption interferierender Röntgenstrahlen längs ihrer Wege im idealen Kristallgitter. 2064.
- Borst, John M.* s. *Cooper, Franklin S.* 2224.
- Borsuk, K.* s. *Aczél, J.* 2261.
- Bortels, H.* Beziehungen zwischen Witterungsablauf, physikalisch-chemischen Reaktionen, biologischem Geschehen und Sonnenaktivität. Mikrobiologische Versuchsergebnisse. 711.
- Borthwick, R. A.* Ionization chamber with a short collecting time for routine testing of diagnostic X-ray equipment. 1275.
- Bortner, T. E.* s. *Melton, C. E.* 415.
- Bory, Charles.* Etude théorique par voie continue du mélange par turbulence dans les fluides. 205.
- Essai théorique sur la diffusion dans un fluide en mouvement. 2292.
- Bosch, Eugen.* Reichweitebestimmung von α - und β -Strahlen als Demonstrationsversuche im Schulunterricht. 1920.
- Boscher, Jean* s. *Malavard, Lucien.* 358.
- Bosco, B.* and *Stroffolini, R.* Field theoretical model for S-wave pion-nucleon scattering. 539.
- Meson-meson interaction from a field-theoretical-model. 2041.
- Bose, A. N.* Study of viscosity of the system: water-sodium laurate — and different alcohols in presence of sodium chloride. 2320.
- Variation of electrical conductance with concentration of the system water-sodium laurate — and different alcohols. 2320.
- Study of viscosity and conductivity of the system: water-sodium palmitate and different alcohols. 2321.
- , *H. N.* Thermoluminescence of alkali halide phosphors. 327.
- Bosley, W.* and *Hughes, I. S.* Nuclear scattering of electrons and positrons at 10 Mev. 775.
- and *Muirhead, H.* Coulomb scattering of charged particles in nuclear emulsions. 1977.
- Bossolasco, M.* Schneefall und Lufttemperatur. 1703.
- Bostick, H. A.* s. *Bandtel, K. C.* 1602.
- , *Winston H.* Torus model of the elementary particles in which stability may be achieved by gravitational forces resulting from the concentrated electromagnetic field. 1299.
- Hypothesis for the origin of the magnetic fields and angular rotations of stars and planets. 2562.
- and *Levine, Morton A.* Experiments on the behavior of an ionized gas in a magnetic field. 145.
- Bostrom, Norman A., Hudspeth, Emmett L.* and *Morgan, Ira L.* Excitation curve for F^{19} (n, α) N^{16} . 1539.
- , —, — Neutron detection with BaF^2 scintillator. 1979.
- Bot, Jean le et Montagner, Serge le.* Propriétés diélectriques en ondes centimétriques de l'eau adsorbée sur gel de silice. 113.
- , — Méthode diélectrique, nouveau procédé d'étude de l'adsorption de l'eau. 113.
- Prof. Bothe* 1090.
- Bothe, W.* Neutrale Teilchen in der kosmischen Strahlung? 391.
- s. *Faissner, H.* 614.
- Walther Bothe* 713.
- Bothorel, P.* s. *Pacault, A.* 1402.
- Bott, M. J.* s. *Robinson, Conmar* 2441.
- Botzen, A.* s. *Michels, A.* 922, 2288.
- Bouby, J.* et *Chapiro, A.* Radiolyse des solutions diluées de diphénylpiérylhydrazyle (D.P.P.H.) dans les solvants

- organiques. III. Effet de l'oxygène — solvants mixtes. 613.
- Bouchez, R., Robert, J. et Tobaillem, J. Effet de la structure nucléaire sur la loi statistique de l'énergie de liaison. 2006.
- , Michalowicz, A., Riou, M. et Teillac, J. Étude des rayonnements γ et x émis par l'actinium. 2382.
- Bouigue, Roger. Probabilités de transition des molécules biatomiques symétriques (spectre de vibration). 440.
- Bouissières, Georges, Marty, Mme Nadine et Teillac, Jean. Préparation de UZ (^{234}Pa) et étude de son rayonnement β . 1780.
- s. Frilley, Marcel 569, 1769.
- Bouix, Maurice, Clément, Michel et Frémiot, Charles. Etude expérimentale de la polarisation circulaire sur les échos de la pluie avec un radar à impulsion dans la bande de 3 cm. 1057.
- Boullé, André et Mariée, Michel. Ponctuation des raies des diagrammes X de poudres. 102.
- Boulloud, André. Décharge entre une pointe positive et un plan dans l'air et l'anhydride carbonique comprimés. 2491.
- Bouman, M. A. and Brink, G. van den. Absolute thresholds for moving point sources. 512.
- Bourgeois, J., Ertaud, A. et Jacquesson, J. Bétons spéciaux de protection. 1989.
- Bourghardt, S., Hydén, H. and Nyquist, B. Scanning and computing microphotometer for cell analyses. 1273.
- Bourlange, Mlle Christiane s. Petit, Georges. 1112.
- Bousquet, Paul. Systeme de franges se produisant dans une lame transparente au voisinage de l'angle limite de réflexion totale. 1681.
- Bouthillon, L. s. Iliovici, A. 541.
- Boutry, G. A. Oeil humain devant le spectacle de télévision. 681.
- Boward, Jean. Dispositifs d'alimentation en courant continu pour installations d'abonnés. 1447.
- Bouwers, A. and Blaisse, B. S. Anamorphic mirror systems. 689.
- Bowcock, J. E. Calculation of reduced widths from stripping curves. 75.
- Bowden, F. P. and Rowe, G. W. Adhesion of clean metals. 807.
- Bowden, K. F. Phphysics in oceanography. 2577.
- Bowe, Joseph C. Measurement of electron mobilities in gases. 1867.
- Bowen, E. G. Radio telescope design; the big antenna versus the interferometer array. 514.
- , Ira S., Ives, Frederic. medalist for 1952. 1918.
- , Jane D. s. Morris, A. 1476.
- , K. C. Sources of error in U-Adcock high-frequency direction-finding. 307.
- , L. O. s. Lowe, I. J. 1212.
- , Theodore. Ionization energy loss of mesons in a sodium iodide scintillation crystal. 387.
- s. Haskin, D. M. 2351.
- Bower, J. C. s. Walker, J. 1323.
- Bowers, R. Magnetic susceptibility of sodium. 647.
- and Melamed, N. T. Luminescent centers in ZnS:Cu:Cl phosphors. 692.
- and Mendelssohn, K. Heat conductivity of liquid helium I. 2075.
- , Wayne A. s. Alexander, James D. 540.
- Bowler, E. S. C. s. Froula, H. 1686.
- Bowles, K. L. Doppler shifted radio echos from aurora. 886.
- Bowman, Harry R. and Mann, Lloyd G. Gamma rays accompanying spontaneous fission of Cf^{252} . 578.
- , J. E. and Niblett, G. B. F. Passage of a plane shock wave through a wire gauze. 1309.
- Boyer, J. M. and Talbot, L. Drag in a rotatin cylinder apparatus near conditions of free molecule flow. 1945.
- Bor, Harold C. and Klaiber, G. Stanley. Gamma-ray spectrum of Ac^{228} . 771.
- Boyd, A. W. s. Bartholomev, Rosalie M. 239.
- , G. E., Sites, J. R., Larson, Q. V. and Baldock, C. R. Production and identification of long-lived technetium isotopes at masses 97, 98, and 99. 1779.
- , R. L. F. and Morris, D. Radio-frequency probe for the mass-spectrometric analysis of ion concentrations. 2343.
- and Twiddy, N. D. Atomic hydrogen in the research laboratory. 695.
- Boyer, R. F. Viscosities of extremely dilute polystyrene solutions. 2078.
- and Strecker, D. J. International cooperative molecular weight study on polystyrene. 2082.

- Boyland, E.* Étude des relations possibles entre structure et activité biologique des substances carcinogènes. 1475.
- *s. Booth, J.* 254.
- Boyle, A. J. F. s. Campbell, J. G.* 1979.
- *s. Inall, E. K.* 2033.
- , *W. S. and Kisliuk, P.* Departure from Paschen's law of breakdown in gases. 669.
- , — Departure from Paschen's law of breakdown in gases. 1044.
- *s. Germer, L. H.* 840, 2504.
- *s. Kisliuk, P.* 839.
- Boynton, Robert M., Enoch, Jay M. and Bush, William R.* Physical measures of stray light in excised eyes. 698.
- Bozman, William R.* Use of IBM machines in the analysis of technetium I. 95.
- Bozorth, R. M., Tilden, Elizabeth F. and Williams, Albert J.* Anisotropy and magnetostriction of some ferrites. 2456.
- , *Cetlin, Beatrice B., Galt, J. K., Merritt, F. R. and Yager, W. A.* Frequency dependence of magnetocrystalline anisotropy. 2456.
- Braams, C. M.* (d, p) reactions of Ca^{42} and Ca^{44} . 1785.
- *s. Bockelman, C. K.* 1785.
- *s. Buechner, W. W.* 1568.
- Brabant, J. M. s. Caswell, R. S.* 955.
- , *Cork, Bruce, Horowitz, Nahmin, Moyner, Burton J., Murray, Joseph J., Wallace, Roger and Wenzel, William A.* Terminal observations on antiprotons. 1529.
- *s. Wallace, Roger W.* 2036.
- Bracci, A., Coceva, C., Colli, L. and Lonati, R. Dugnani.* Experimental measurements on double Compton effect. 2042.
- Bracewell, R. N.* Method of correcting the broadening of X-ray line profiles. 1184.
- Chord construction for correcting aerial smoothing. 1279.
- Correcting for Gaussian aerial smoothing. 1676.
- Ionospheric propagation of radio waves of frequency 16 kc/s over distances of about 200 km. 1914.
- Correcting for running means by successive substitutions. 1933.
- Photographic enlargement and reduction in one dimension only. 2535.
- Bracewell R. N. s. Bain, W. C.* 1914.
- Brachman, M. K. s. MacDonald, J. R.* 2453.
- Space-time representation in wave mechanics: Illustration of the method. 5.
- Fermi level, chemical potential and Gibbs free energy. 1118.
- and *MacDonald, J. Ross.* Linear-system integral transform relations. 1708
- Bracken, J. T., Rollor, E. A. and Mohrbacher, J. A.* Effects of operating proportional counters in high gamma fields. 1976.
- Brackett, Frederick S. s. Daniel, John H.* 1882.
- , *T. E., Dunlap, R. D. and Biscoe, J.* Small-angle X-ray scattering by the system iso-octane-n-heptforane. 106.
- Brackmann, J. s. Kornetzi, M.* 1897.
- Braden, C. H., Patronis, E. T. jr. and Wyly, L. D.* Decay of Hg^{195} . 239.
- Bradford, Alan P. s. Hass, Georg.* 639.
- , *E. B. and Vanderhoff, J. W.* Electron microscopy of monodisperse latexes. 1636.
- *s. Alfrey, Turner jr.* 1682.
- Bradley, D. E.* Carbon replica method. 1889.
- , *E. M. s. Pringle, D. H.* 1664.
- , *E. F. s. West, D.* 224.
- , *Joe C. s. Haar, Lester.* 380.
- , *R. S.* Specific heat and other thermodynamic functions of rhombic and monoclinic sulphur and their application to the kinetics and thermodynamics of phase transformation. 1110.
- Bradner, Hugh and Donaldson, Robert E.* Asymmetry in high-energy p-n-p double chargeexchange scattering. 1589.
- *s. Donaldson, Robert E.* 1377.
- Bradshaw, C. G. s. Brailsford, F.* 867.
- Bradshaw, E.* Units of flux, flux-linkage, permeance and permeability. 10.
- Bradt, Paul and Mohler, Fred L.* Mass spectra of thermal degradation products of polymers. 2435.
- Brady, J. J. s. Perry, R. L.* 483.
- Braestrup, C. B. and Mooney, R. T.* Physical aspects of rotating telecobalt equipment. 1278.
- Braffort, Paul s. Bonnaure, Pierre* 1330.
- Bragard, Lucien.* Déviation de la verticale en un point du cogéode. 1699.
- Bragaw, Chester G. jr.* Biaxial creep fracture of high polymers. 1415.

- Bragg, J. K., Sharbaugh, A. H. and Crowe, R. W.* Cathode effects in the dielectric breakdown of liquids. 147.
- *s. Crowe, R. W.* 144, 1661.
- Braham, Roscoe R. jr. s. Byers, R.* 527.
- Brahmachary, R. L.* Derivation of Friedmann's solution for a new cosmological model. I. 351.
- Axially symmetric solution in problems of galactic magnetic fields and a new type of red shift. 518.
- Braid, T. H. and Detenbeck, R. W.* Fast multichannel coincidence circuit. 385.
- Brailsford, F.* Ferromagnetism in relation to engineering magnetic materials. 1846.
- and *Bradshaw, C. G.* Iron losses at high magnetic flux densities in electrical sheet steels. 867.
- Bramley, Arthur.* Properties of CdS films deposited in vacuo. 651.
- Electroluminescent lamp. 2539.
- , *E. N.* Rapid directional fluctuations of short radio waves reflected at the ionosphere. 710.
- Bramson, H. J.* Electron spectrum from muon decay. 1343.
- Branch, Gerald s. Thomas, Jerome F.* 2413.
- , *G. M.* Reduction of plasma frequency in electron beams by helices and drift tubes. 2517.
- , *R. F. s. Bellamy, L. J.* 1403.
- Brand, Frank A. and Jacobs, Harold.* Energy distributions of field dependent secondary electrons. 485.
- *s. Jacobs, Harold* 2139, 2480.
- , *J. A. and Goldschmidt, H. J.* Temperature calibration of a high temperature X-ray diffraction camera. 1472.
- Brandau, H. U. s. Peter, S.* 2286.
- Brandes, Günther s. Luther, Horst* 1189.
- Brandmüller, J.* Ausleuchtung von Spektrographen durch Volumenstrahler. 1252.
- Physik der Milchbestrahlungsgeräte. 703.
- Rayleigh-Streuung und Rotations-Raman-Effekt von Flüssigkeiten. 2076.
- und *Moser, Heribert.* Photoelektrische Registrierung von Raman-Spektren. 1187.
- Brandon, P. S.* Electronic analogue integration and differentiation. 2263.
- Brandstätter, Friedrich.* Förster-sonde für Vermessungen starker Magnetfelder. 643.
- Brandstätter, Maria.* Mikroskopische Studien zum Spiralwachstum der Kristalle. 1193.
- Brandt, Leo.* Atomenergie als wirtschaftliche Kraftquelle auch für Deutschland? 936.
- , *Werner.* Intermolecular force fields in high polymers composed of alternating dipole chains. 2081.
- Brandwein, D. S. s. Abramson, B. N.* 1507.
- Brannen, Eric, Hunt, F. R., Adlington, R. H. and Nicholls, R. W.* Application of nuclear coincidence methods to atomic transitions in the wave-length range $\lambda\lambda$ 2000—6000 Å. 156.
- , —, —, — Nuclear coincidence techniques applied to optical transitions. 1809.
- Brannock, K. C. s. Wilcox, W. S.* 434.
- Branscomb, L. M. s. Smith, S. J.* 617.
- and *Smith, Stephen J.* Electron affinity of atomic oxygen. 994.
- Bransden, B. H. and Dalgarno, A.* Calculation of auto-ionization probabilities. III. Auto-detachment from the negative hydrogen ion. 901.
- and *McKee, J. S. C.* 1s-2s excitation of hydrogen by electron impact. 2404.
- Branson, Herman and Garner, L. B.* Electron impact studies with trimethylamine. 1813.
- and *Ledbetter, Nasira F.* Electron impact studies with dimethylamine. 623.
- Brar, S. S. s. Clark, R. K.* 1276.
- Brasefield, C. J.* Winds at altitudes up to 80 kilometers. 531.
- Brattain, W. H. s. Garrett, C. G. B.* 136.
- Brauer, Peter.* Elektrostatischer Anteil der Gitterenergie der Perowskit-Gitter. 796.
- Braun, A.* Micrographie quantitative. 2521.
- , *A. E. s. Low, W.* 1070.
- , *Many, A. and Simchen, A. E.* Color centers in chrome alum crystals. 446.
- , *Günther.* Methode der stationären Phase. 1292.
- , *H. s. Lonchamp, J. P.* 2339.
- , *Julian H.* Summation of slowly converging series. 1707.
- , *Klaus.* Ansprechzeiten gasgefüllter Röhren für Schaltaufgaben der Nachrichtentechnik. 1457.
- , *Reinhold s. Dichl, Jörg.* 1958.
- , *R. C.* Electrode for measuring the conductivities of solutions at low pressures. 829.

- Braun, Wolfgang.* Radiographische und radiometrische Oberflächen-Analyse von Leichtmetall-Legierungen. 333.
- Brauner, E., J. s. Richards, N. E.* 740.
- Braunersreuther, E. und Kuhrt, F.* Meßumformer für die elektronische Regelung des Effektivwertes einer Wechselspannung. 2276.
- s. *Kuhrt, Friedrich.* 301.
- Braunmühl, von H. J. s. Lottermoser, W.* 2299.
- Braunstein, Jerry s. Frost, Arthur A.* 430.
- , *R. and Trischka, J. W.* Molecular constants and nuclear-molecular interactions of Li^7F^{19} by the molecular beam electric resonance method. 998.
- Bray, P. J. and Barnes, R. G.* Quadrupole resonances in multichlorobenzenes. 647.
- , — As^{75} pure quadrupole resonances. 2458.
- — Quadrupole resonances of chloro- and bromobenzene derivatives. 2458.
- s. *Barnes, R. G.* 2458.
- , *Ralph.* Minority carrier extraction in germanium. 1031.
- , Electrical breakdown in InSb at low temperature. 1653.
- , Minority carrier extraction in germanium. 2130.
- Braybon, J. E. H.* Mechanism of stress birefringence in amorphous solids. 2532.
- Brazos, J. N. and Steffen, R. M.* Dual decay of the 50-day In^{114} isomer. 1560.
- s. *Steffen, R. M.* 1560.
- Brdicka, Rudolf.* Kinetische Reduktionsgrenzströme des Formaldehyds an der tropfenden Quecksilberelektrode. 664.
- Breazeale, J. B. s. Beams, J. W.* 1635.
- , *F. B. s. Irvin Barbara.* 111.
- , *J. B., Bart, W. L. and Beams, J. W.* Tensile strengths of silver films of various thicknesses at different temperatures. 1417.
- Breckheimer, Wa. s. D'Ans, Jean.* 2152.
- Brefort, Jacques mit Poupard, Agénor et Combaud, Daniel.* Dispositif simple de régulation de la tension électrique. 643.
- Brhm, Richard K. and Fassel, Velmer A.* Direct reading spectrochemical analysis with a rapid-scanning spectrometer. 1064.
- Breil, Günther. s. Schäfer, Harald.* 1113.
- Breit, G.* Theory of nucleon transfer. 188.
- Relativistic corrections for high-energy p-p scattering. 1590.
- and *Daitch, P. B.* Correspondence between semiclassical and quantum treatments of Coulomb excitation. 82.
- , — Redistribution of classical and quantum densities. 1496.
- and *Ehrman, J. B.* Formula for polarization in nucleon-nucleon scattering. 81.
- and *Hull, jr. M. H.* Amplitudes in nucleon-nucleon scattering. 413.
- *Ebel, M. E. and Benedict, F. D.* Angular distribution of gamma rays in Coulomb excitation. 1569.
- *Ehrman, J. B. and Hull jr. M. H.* Polarization and amplitudes in nucleon-nucleon scattering. 414.
- , — *Saperstein, A. M. and Hull, jr. M. H.* Phase shifts for nucleon-nucleon scattering at 280 Mev. 81.
- s. *Benedict, F. D.* 1569.
- s. *Daitch, P. B.* 82.
- s. *Gluckstern, R. L.* 1570.
- Breitenbach, J. W.* Wirkungsmechanismus von Kettenüberträgern und Verzögerern. 1834.
- *Forster, E. L. und Renner, A. J.* Molekulargewichtsbestimmungen an Polyvinylchloriden. 2436.
- Breitenbecher, D. V.* Gated phototube for fast pulse operation. 1749.
- Breiter, M. und Clamroth, R.* Wasserstoffüberspannung an Elektroden mit zwei hintereinander ablaufenden geschwindigkeitsbestimmenden Vorgängen. 828.
- *Kammermaier, H. und Knorr, C. A.* Untersuchung des Aufbaues und Abbaues der Palladiumwasserstoffphase durch Messung der Phasengrenzimpedanz und des Potentials der Palladiumelektrode bei Bepulung mit Wasserstoff bzw. mit sauerstoffhaltigem Stickstoff. 750.
- , — Phasengrenzimpedanz an Edelmetallelektroden im Gebiet der Wasserstoffadsorption. I. Aktivierte Platinelektroden. 1439. II. Aktivierte Iridium- und aktivierte gealterte Rhodiumelektroden. 1439.
- , — und *Völkl, W.* Die bei verschiedenen stationären Überspannungswerten auf Edelmetallelektroden adsorbierten,

- mittels Ladekurven bestimmbarer Wasserstoffmengen. 661.
- Breitling, G* und *Glocker, R.* Messung der β - und γ -Strahlendosis von radioaktiven Stoffen in Röntgeneinheiten. 342.
- , — Bestimmung der Polarisationskorrektur bei der Bremsung schneller Elektronen von 3 bis 15 MeV. 1170.
- , — Einfluß der Polarisationskorrektur (Fermi-Korrektur) des Elektronenbremsvermögens auf die Dosismessung bei ultraharten Röntgenstrahlen. 1693.
- , — Anschluß der Dosismessung bei schnellen Elektronenstrahlen (3 bis 15 MeV) an die Röntgendosismessung. 2226.
- , — und *Rösinger, S.* Chemische Dosismessung bei schnellen Elektronenstrahlen (15 MeV). 1693.
- *Herre, F.* und *Richter, H.* FOURIER-Analyse von Röntgenstreu曲linien. 104.
- *s. Richter, H.* 262.
- Breitman, Leo.* Glass transitions in polymer plasticizer systems. 1415.
- Brene, N.* *s. Davies, J. H.* 763
- Brenet, Jean.* Relation entre les caractéristiques électriques et géométriques d'une cellule électrochimique au bioxyde de manganèse. 2158.
- *Moussard, Mme Anne-Marie et Grund, Alfred.* Processus de dépolérisation dans les cellules électrochimiques au bioxyde de manganèse. 2486.
- Brenig, W.* Kopplungskräfte zwischen Metallatomen. 257.
- Besitzen Schallwellen einen Impuls? 1107.
- Kollektive und individuelle Freiheitsgrade beim Helium II. 2073.
- und *Schröder, M.* Darstellung der spezifischen Wärme fester Körper durch Debye- und Einstein-Terme. 1959.
- Brenkman, J. A.* *s. Maesen, F. van der* 1650.
- Brennan, D. G.* Maximum signal-to-noise ratio realizable from several noisy signals. 2511.
- , *J. G.* und *Volkov, A. B.* Magnetic moments of conjugate nuclei. 568.
- *s. Adkins, R.* 1530.
- , *James T., Harris, Payne S., Carter, Robert Emerson* und *Langham, Wright H.* Biological effectiveness of thermal neutrons on mice. II. 1694.
- Brenner, M., Zimmermann, J. P., Wehrmüller, J., Quitt, P.* und *Photaki, Iphigenia.* Umlagerungsreaktion und ein neues Prinzip zum Aufbau von Peptidketten. 873.
- , *Robert.* Theorie der Néelschen Zipfelmützen und der Koerzitivkraft des Schlauchziehens. 120.
- Quantitative Theorie der Koerzitivkraft. 120.
- Bresky, Donald R.* *s. Savitzky, Abraham.* 1679.
- Bressi, Aldo.* Misure elettroacustiche di modulo elastico. 2282.
- Bretonneau, Pierre.* Mesure de la période du ^{12}B et du ^8Li . 1545.
- Bretscher, M. M. s. Shull, F. B.* 389, 573.
- Bretteville, jr. A. de.* Second-order transition in BaTiO_3 . 1240.
- Bretz, Marianne.* Mitte-Rand-Variation von Wachstumskurven auf der Sonne. 1081.
- Breunich, T. R.* Fatigue testing fixtures. 1471.
- Brewer, A. W.* und *Palmer, H. P.* Freezing of supercooled water. 749.
- , *D. F.* und *Edwards, D. O.* Helium liquefier and cryostat. 1723.
- und *Mendelssohn, K.* Anomalous surface tension in helium II. 2073.
- *Edwards, D. O.* und *Mendelssohn, K.* Entropy of superfluid helium. 632.
- , *F. M. s. Morris, D. F. C.* 506.
- , *jr. H. G., s. Bernstein, W.* 314.
- , *Leo* und *Porter, Richard F.* Heat of sublimation of tin and dissociation energy of SnO . 26.
- Brice, B. A. s. Hahner, M.* 159.
- , *M. K. s. Cork, J. M.* 60, 61, 96, 1162, 1556, 1566, 2377.
- Brick, D. B.* Excitation of surface waves by a vertical antenna. 2509.
- Brickwedde, F. G. s. Armstrong, George T.* 2319.
- Bridge, H. S., Courant, H., De Staebler jr., H.* und *Rossi, B.* Possible example of the annihilation of a heavy particle. 44.
- *DeStaebler, jr. H. Rossi, B.* und *Sreekantan, B. V.* Evidence for heavy mesons with the decay processes $K_{\pi 2} \rightarrow \pi + \pi^0$ and $K_{\mu 2} \rightarrow \mu + \nu$ from observations with a multiplate cloud chamber. 1135.
- *Courant, H., Dayton, B., DeStaebler, jr. H. C., Rossi, B.* und *Willard, D. S.* particles. 44.

- Bridge H. S. s. Altman, L.* 249.
 — *s. DeStaebler, jr. H.* 44, 1337.
Bridges, T. J. s. Walsh, D. 1233.
Bridgman, P. W. Reflections on thermodynamics. 213.
Briegleb, G. und Bieber, A. Dissoziationskonstanten substituierter Benzoesäuren bei verschiedenen Temperaturen und thermodynamische Größen der Säuredissoziation. Potentialmessungen an Ketten ohne Flüssigkeitspotentiale. 2150.
Brière, M. et Weill, J. Détecteur de contamination radioactive. 347.
Briganti, Elio. Studio del dielettrico del condensatori a carta. 2101.
Briggs, G. H. Energies of natural alpha particles. Berichtigung. 1142.
 —, *Lyman J.* Limiting thickness of an electrolyzed gas film capable of sustaining a given negative pressure. 2444.
Bright, A. W. and Thorp, J. S. Measurements of retarding potential on the hollow cathode. 2488.
 — *s. Walsh, D.* 1233.
Bril, A. and Klasens, H. A. Phosphors for tricolour television tubes. 499.
Brindley, G. S. Photochemical reaction in the human retina. 702.
Briner, Emile et Dallwigk, Edouard. Spectre d'absorption infrarouge d'un ozonide cristallisé: ozonide de la Δ 9-10-octaline. 1627.
Brini, D., Peli, L., Rinodi, O. and Veronesi, P. Absolute low-energy differential range spectrum of cosmic ray μ -mesons at sea-level. 425.
 —, —, —, — Large scintillation counters. 1324.
 —, —, —, — Sufficiently fast and economical sweep circuit. 680.
 — *Rimondi, O., Valdrè, U. and Filosofo, I.* Zenithal effect of extensive air showers 425.
 —, *Mme Mathilde.* Spectres infrarouge de quelques composés aliphatiques à longue chaîne. I. Paraffines. 623.
Brink, D. M. Inelastic scattering of neutrons by deformed nuclei. 605.
Brink, G. van den. s. Bouman, M. A. 512.
Brinkley, T. A. s. Titterton E. W. 2020.
Brinkman, G. A. s. Lindner, L. 2371.
 —, *H. s. Berg, C. B. van den* 856.
 —, *H. C.** Spinor invariants in atomic physics. 535.
Brinkman, J. A. Determination of activation energies. 1826.
 — Nature of radiation damage in metals. 1604.
Brinkmann, Karl. Herstellung von Hochspannungskabeln. 644.
Brinkworth, M. J. and Rose, B. Measurement of the direction of the polarization produced in the scattering of 135 MeV protons. 2034.
Brion, Mlle Hélène et Daudel, Raymond. Définition et propriétés des orbitales localisées. 2406.
Bristeau, P. Pile haute tension de faible volume. 832.
Briz, P. and Herzberg, G. Fine structure of the Schumann-Runge bands near the convergence limit and the dissociation energy of the oxygen molecule. 255.
 — *Kopfermann, H., Martin, R. und Walcher, W.* Kernmomente der Ag-Isotope und die Isotopieverschiebung im Silberspektrum. 2050.
Brixner, Berlyn. One million frame per second camera. 1463.
Broadbent, S. R. Observed regularities in nuclear energy levels. 2004.
 — and *Callcott, T. G.* Matrix analysis of processes involving particle assemblies. 2549.
 —, *T. E. and Wood, J. K.* Thermally triggered spark gap. 297.
Brock, E. G. and Taylor, J. E. Field emission from titanium single crystals. 1008.
 —, *J. E. s. Willman, B. T.* 20.
Brockhouse, B. N. Slow neutron spectrometry. Fool for the study of energy levels in condensed systems. 1329.
 — Energy distribution of neutrons scattered by paramagnetic substances. 1593.
 — and *Myers, H. P.* Magnetic transition in Mn_3ZnC . 1211.
 — and *Stewart, A. T.* Scattering of neutrons by phonons in an aluminum single crystal. 1597.
 — *Corliss, L. M. and Hastings, J. M.* Multiple scattering of slow neutrons by flat specimens and magnetic scattering by zinc ferrite. 1382.
Brocklebank, R. W. s. Wilson, M. H. 1693.
Brockman, M. H. Analysis of a broadband detector circuit. 2512.

- Brocks, K. Zu H. C. Freiesleben:* Strahlenbrechung in geringer Höhe über Wasseroberflächen. 2583.
- *Terrestrische Refraktion in polytropen Atmosphären.* 2584.
- *Lichtstrahlkrümmung in Bodennähe.* (Tabellen des Refraktionskoeffizienten.) I. (Bereich des Präzisionsnivelements. 2584.
- Brockway, L. O. s. Bartell, L. S.* 2047.
- Broda, E. s. Giegerl, E.* 1985.
- , *Engelbert*, Ludwig Boltzmann.* 1290.
- Brode, Harold L.* Blast from a sphere of high-pressure gas. 916.
- , *Robert B.* Cosmic-ray transition phenomena due to electrons, photons, and mesons. 2044.
- and *Weber, Marvin J.* Positive excess of high-energy μ mesons. 1344.
- Broder, J. s. Keck, P. H.* 1625.
- Brødersen, P. H. und Mayo, S.* BrF-Banden im Schumann-Gebiet. 998.
- und *Sicre, J. E.* Spektrum des BrF und seine Dissoziationsenergie. 437.
- , *Svend.* Slit-width effects. 492.
- Noise filter effects in recording spectroscopes. 685.
- Brodhun, D.* Einfluß von schwingungsfähigen Schallschluckern auf die Nachhallzeit von Räumen. 1956.
- und *Feik.* 3-D-Raumklang im Spiegel der Physik. 22.
- Brodie, I. d. c.* and pulsed emission from L-cathodes. 845.
- Brody, J. K. Fred, M. and Tomkins, F. S.* Spectroscopic assay of lithium-isotopes. I. Measurements at high intensity. II. Measurements on small samples at low intensity. 430.
- *T. A.* Apparent length of tracks in nuclear emulsions. 1978.
- Broeder, J. J. s. van Deemter, J. J.* 2289.
- Brödner, E.* Stichprobenbeurteilung und statistische Verlustzeitkontrolle. 2277
- Broek, J. van den s. Marel, L. C. van der* 1019.
- Brockhuijsen, R. s. Ketelaar, J. A. A.* 2329.
- Broen, Sanborn C. s. Reder, Fritz H.* 143.
- Broer, J. W. s. Chiba, Ren.* 1353.
- *s. Douglas, R. A.* 1353.
- Broglie, de Louis.* Interprétation causale et non linéaire de la mécanique ondulatoire. 1494.
- *Théorème de M. Poincelot.* 2278.
- Brogren, Gösta.* Line width determinations with bent crystal spectrometers. 156.
- Reflection and transmission of X-rays in quartz near the Bragg angle. 160.
- and *Nordling, Carl.* Anomalous X-ray transmission through a crystal on both sides of the K absorption edge of an element in the crystal. 160.
- Broida, Herbert P.* Afterglow of solid nitrogen. 1232.
- *s. Bass, Arnold M.* 2207.
- Brolley jr. J. E. and Henkel, R. L.* Angular distribution of fragments from neutrons-induced fission of U^{238} . 1776.
- and *Ribe, F. L.* Energy loss by 8.86-Mev deuterons and 4.43-Mev protons. 1378.
- *Bunker, M. E., Cochran, D. R. F., Henkel, R. L., Mize, J. P. and Starner, J. W.* 14-Mev (n, α) cross sections in zirconium. I. 1539.
- *s. Armstrong, A. H.* 1539.
- Bromley, D. A. and Wall, N. S.* Elastic scattering of 5.25-Mev protons on nickel and copper. 1589.
- Bronson, E. L. s. Woodard, D. H.* 2198.
- Brook, M. and Kaplan, J.* Dissociation energy of NO and N_2 . 623.
- Brooks, E. J. s. Birks, L. S.* 168.
- , *F. L. s. Silvidi, A. A.* 1745.
- , *H. s. Benedek, G. B.* 1859, 2122.
- *s. Warschauer, D. M.* 2121.
- , *L. H. s. Ward, A. F. H.* 2088.
- , *LeRoy S.* Slit for interposing spectra on echellegrams. 1678.
- Vapor pressure of polonium. 2319.
- and *Bryan, Ford R.* Spectrographic method for the determination of phosphorus in steels. 503.
- Broom, R. F. s. Rose-Innes, A. C.* 1303.
- Broomell, G. L. und Emerich, L. E.* Entwicklungen an Meßsystemen für Registriergeräte und ihre Anwendungsformen. 2258.
- Brophy, J. J. Rostoker, N. and Azaroff, L. V.* Semiconducting properties of iron oxide thermistor material. 134.
- Excess noise in plastically deformed germanium. 1434.
- Current noise in thermistor bolometer flakes. 1667.
- Electrical properties of a semiconducting diamond. 1858.
- Broquet, E. s. Blandel, A.* 2210.

- Broser, I. and Kallmann, H. Measurements of α -particle energies with the crystal fluorescence counter. 1980.
- Broser-Warminsky, R. s. Arend, H. 2205.
- Brosi, A. R. and Ketelle, B. H. Radioactivity of the cerium-137 isomers. 1565.
- Brosinsky, Hansjoachim. Berechnung des Ladungszustandes in schnelllaufenden Dieselmotoren. 2297.
- Brossel, Jean, Cagnac, Bernard et Kastler, Alfred. Résonance magnétique sur des atomes orientés optiquement. 250.
- Brot, C., Magat, M., Reinisch, L. et Hüchel, E. Dispersion diélectrique dans le domaine décimétrique et centimétrique. 2168.
- Analyse de certaines dispersions d'orientation dipolaire. 1868.
- s. Lacerda, Mlle Leda. 1237.
- Broude, C., Green, L. L., Singh, J. J. and Willmott, J. C. Low-lying levels of P^{30} . 2377.
- Brouillet, Ph. s. Epelboin, I. 1866.
- Absorption de l'eau par les solutions de polissage électrolytique. 2487.
- Brout, Robert. Rotational energy transfer in diatomic molecules. 1000.
- Rotational energy transfer in H_2 . 2413.
- Brown, Alexander. s. Reding, F. P. 455.
- , A. R. G., Watt, W., Powell, R. W. and Tye, R. P. Thermal and electrical conductivities of deposited carbon. 1856.
- , Callaway, and Franson, Karl D. Manometric determination of the density of liquid ozone. 2280.
- Berger, Abraham W. and Hersh, Charles K. Solid ozone. 1112.
- , David R. and Albers-Shoenberg, Ernst. Ferrites speed digital computers. 184.
- , D. S. Use of high contrast in the photography of interference fringes. 158.
- Application of shearing interferometry to routine optical testing. 310.
- , D. W. s. Florin, R. E. 1632.
- , F. s. Bartholomew, G. A. 964, 1548, 1784.
- s. Bartholomew, Rosalie M. 239.
- , Felix H. s. Furst, Milton. 36.
- , Frederick C. Electron mobility in Ag Cl: comparison of experiment with theory. 1034.
- , G. Burniston. Theory of action-at-a-distance. 196.
- , G. E. and Mayers, D. F. Coherent scattering of γ -rays by K electrons in heavy atoms. III. Scattering of 0.64 mc^2 γ -rays in mercury. 1387.
- Brown, Alexander and Schaefer, G. W. Expansion in angular momenta in bound-state perturbation theory. 1183.
- , Harry A. Calculation of the discontinuity in the specific heat of gadolinium. 211.
- Calculation of Curie temperatures. 645.
- , Hugh N. and Becker, Robert A. Radiations from Ho^{164} . 68.
- , J. s. Sollom, P. H. 1874.
- Negative phase velocity. 2189.
- , J. F. and Weir, R. J. X-ray absorption spectrometer for the determination of tetraethyl lead in petrol. 1894.
- , J. H. Measure motion to 0.0001 in. without friction or wear. 909.
- , K. L. Z-dependence of bremsstrahlung in the case of complete screening. 1800.
- Barber, W. C., Berman, A. I. and George, W. D. Z-dependence of bremsstrahlung. 1384.
- s. Barber, W. C. 1799.
- s. Tautfest, G. W. 389.
- , Kenneth T. Experiment demonstrating instability of retinal directional values. 700.
- , L. Carlton and Parker, Paul M. Nuclear magnetic dipole and electric quadrupole energy relations. 2106.
- and Williams, Dudley. Nuclear magnetic moment of potassium³⁹. 2106.
- , L. E. s. O'Connor, R. T. 2410.
- , P. G. M. and Prue, J. E. Study of ionic association in aqueous solutions of bi-bivalent electrolytes by freezing-point measurements. 550.
- , Hanbury R. and Hazard, C. Extragalactic radio-frequency radiation. 2236.
- Palmer, H. P. and Thompson, A. R. Rotating-lobe interferometer and its application to radio astronomy. 174.
- , Robert H. Velocity discrimination and the intensity-time relation. 700.
- , R. H. J. s. Ramsay, J. A. 1321.
- , S. s. Weinstein, R. 1129.
- , S. B. s. Trainor, L. E. H. 1328.
- , S. C. s. Champion, K. S. W. 1048.
- Count Rumford — physicist and technologist. 2255.
- s. Goldey, James M. 1221, 1222.
- s. Persson, Karl-B. 1232.
- , s. Rose, David J. 1049.
- s. Schulz, George J. 1042.
- , S. Leroy s. Schwetman, Herbert D. 488.
- , W. F., jr. s. Sachs, G. 332.

- Brown, W. J. s. Blevin, W. R.* 1256.
- , *W. L.* Surface potential and surface charge distribution from semiconductor field effect measurements. 1030.
- Surface potential and surface charge distribution from semiconductor field effect measurements. 1651.
- *Fletcher, R. C. and Wright, K. A.* Traps produced by electron bombardment of germanium at low temperature. 1219.
- s. *Fletcher, R. C.* 1029.
- s. *Montgomery, H. C.* 2126.
- s. *Penman, S.* 1433.
- s. *Shulman, R. G.* 1029.
- , *W. W.* Nuclear interactions of cosmic rays in aluminum. 950.
- Browne, B. C.* Séances de travail de la section de gravimétrie de l'Association Internationale de Géodésie. Assemblée Générale de Bruxelles (Aug. 1951). 1090.
- , *B. C.* Gravity measurements and oceanic structure. 1703.
- and *Cooper, R. I. B.* Gravity measurements in the English Channel. 1282.
- , *C. I., Hoffman, D. C., Smith, H. L., Bunker, M. E., Mize, J. P., Starnes, J. W. Moore, R. L. and Balagna, J. P.* Radiations of Pa^{232} . 65.
- s. *Ghiorso, A.* 1322.
- s. *Prestwood, R. J.* 966.
- , *C. P.* Isotopic spin-selection rule violation in $\text{O}^{16}(\text{d}, \alpha)\text{N}^{14}$. 1367.
- *Zimmerman, S. F. and Buechner, W. W.* Energy levels of Al^{27} . 63.
- s. *Sperduto, A.* 412.
- , *I. C. Bullough, K., Evans, S. and Kaiser, T. R.* Characteristics of radio echoes from meteor trails. II. Distribution of meteor magnitudes and masses. 1081.
- s. *Billam, E. R.* 1082.
- , *M. E. s. Owen, J.* 1848.
- , *P. F.* Transfer of metal between electrodes in a high vacuum on application of a high electric field. 669.
- Brownell, Gordon L. and Lockhart, S. Helen.* CO_2 ion-chamber techniques for radiocarbon measurement. 1984.
- , *L. E. s. Gombert, H. J.* 875, 1278.
- Broyles, Arthur.* Stark fields from ions in a plasma. 1442.
- , *A. A.* Stark fields from ions in a plasma. 1236.
- Brú, L., Cubero, Mercedes y Montis, V. Hernández.* Métodos ópticos en la determinación de estructuras cristalinas. II. 628.
- Brubaker, W. M.* Influence of space charge on the potential distribution in mass spectrometer ion sources. 933.
- Bruce, C. E. R.* Combination spectra in long-period variable stars. 351.
- , *F. M.* Hochspannungsfunkentladungen. 1234.
- s. *Aked, A.* 669.
- , *W. R. and Johns, H. E.* Experimentally determined electron energy distribution produced by cobalt 60 gamma rays. 1080.
- Brucer, Marshall s. Richardson, Jasper E.* 1278.
- Brucker, George J.* Energy dependence of scintillating crystals. 1980.
- Brüche, E. und Poppa, H.* Elektronenmikroskop und die geglänte Metalloberfläche. 1893.
- und *Schimmel, G.* Härte der Glasoberfläche. 337.
- Physik und Technik, Ingenieur und Physiker. 1489.
- Brueckner, K. A.* Energy levels of π -mesonic atoms. 1343.
- Many-body problem for strongly interacting particles. II. Linked cluster expansion. 1718.
- *Eden, R. J. and Francis, N. C.* High-energy reactions and the evidence for correlations in the nuclear ground-state wave function. 1350.
- , —, — Nuclear energy level fine structure and configuration mixing. 1786 (8479).
- , —, — Theory of neutron reactions with nuclei at low energy. 1786.
- *Gell-Mann, M. and Goldberger, M.* Damping of virtual nucleon-pair formation in pseudoscalar meson theory. 7.
- Brüel, P. V.* Automatic recording of frequency irregularity in rooms. 742.
- Brünner, O. s. Becherer, G.* 2415.
- Brünner, H. and Lange, E.* Anodische Prozesse an Metallelektroden, insbesondere beim chemischen und gesamtanodischen Polieren. II. Gesichtspunkte zum chemischen und gesamtanodischen Glänzen und Polieren. 666.

- Brugger, R. M., Bonner, T. W. and Marion J. B. Nuclear reactions Sc^{45} (p, n) Ti^{45} , Cu^{63} (p, n) Zn^{63} , Cu^{65} (p, n) Zn^{65} , and Zn (p, n) Ga . 1143.
- s. Marion, J. B. 1143, 1773, 2366.
- s. Simpson, O. D. 1383.
- Bruijn, de N. G. and Erdős, P. Recursion formula and on some Tauberian theorems. 895.
- Brül, W. A. s. Nussbaum. R. H. 1573.
- Bruin, F. Theory and application of high resolution interferometers. I. Etalon of Fabry and Perot. 1462.
- Theory and application of high resolution interferometers. II. Measurements in the optical and microwave region. 1679.
- , M. Theoretical results of extensive air shower models. 2400.
- and Clay, J. Absorption of high energy cosmic ray photons. 2042.
- Bruining, H. s. Francken, J. C. 1453.
- Brukl, A. and Balcarczyk, L. Bestimmung der Kohlensäure in Luft. 1935.
- Brumley, C. H. s. Blair, G. 173.
- Grating colorimeter-spectrophotometer. 156.
- Brun, E., Meyerhof, W. E. and Kraushaar, J. J. Excited states of Ge^{72} . 1790.
- s. Kraushaar, J. J. 1570.
- , Edmond, Leroux, Jean et Marty, Pierre. Etude, par analogie électrique, du champ thermique à l'intérieur d'un précipitateur thermique. 27.
- Brunelli, B. s. Alexander, G. 561.
- Bruno, B. and Depken, S. Photodisintegration of the deuteron at high energies. 2368.
- Bruzek, Anton. Hypothetische Neigung der Sonnenfleckennachsen. 349.
- Bryan, Ford R. s. Brooks, Le Roy S. 503.
- Bryant, P. J., Rhoads, H. U. and Weber, A. H. Electron beam effects on thin evaporated bismuth films. 1536.
- Bryer, D. W. Remotely-controlled traversing yawmeter for boundary-layer exploration. 1730.
- Brylinski, E. Rationalisation du champ magnétique. 541.
- Brysk, H. and Rose, M. E. Theoretical results on orbital capture. 412.
- Spatial distribution of energy dissipation by high-energy X-rays. 1387.
- Bua, E. s. Croatto, U. 2067.
- Bube, Richard H. Infrared quenching and a unified description of photoconductivity phenomena in cadmium sulfide and selenide. 476.
- Buch, Siegfried. Optische Messungen an aufgedampften reflexionsmindernden Einfachschichten. 317.
- Buchanan, Donald L. Mercury piston gas pump. 2274.
- , T. J., Haggis, G. H., Hasted, J. B. and Robinson, B. G. Dielectric estimation of protein hydration. 1902.
- Buchmann, G. Entwicklung von Lautsprechern. 1733.
- Buck, C. H. Simple and robust aspirator for flue-gas sampling. 725.
- , M. s. Kortüm, G. 2168.
- , W. Roger III and Leidheiser jr., Henry, Electrochemical properties of single crystal electrodes. I. Corrosion of single crystals of iron as it is influenced by contact with tin. 695.
- Buckingham, A. D. Theoretical studies of the Kerr effect. II. Influence of pressure. 498.
- and Pople, J. A. Theoretical studies of the Kerr effect. I. Deviations from a linear polarization law. 497.
- , — Statistical mechanics of imperfect polar gases. I. Second virial coefficients. 1513. II. Dielectric polarization. 1513.
- , — Dielectric constant of an imperfect non-polar gas. 2170.
- , M. J. Superfluidity in liquid He^3 . 1409.
- , R. A. and Dalgarno, A. Interaction of normal and metastable helium atoms. 2404.
- Diffusion and excitation transfer of metastable helium in normal gaseous helium. 2404.
- s. Halpern, O. 1009.
- Budde, Wolfgang und Wyszecki, Günter. Messung des spektralen Remissionsgrades mit der Ulbrichtschen Kugel. 1887.
- Budden, K. G. Numerical solution of the differential equations governing the reflexion of long radio waves from the ionosphere. II. 710.
- Propagation of very low frequency radio waves to great distances. 2176.
- Buddington, A. F. s. Balsley, J. R. 2239.
- Budini, P. Cut-off and non local theories. 1927.

- Budó, Á. und Kovács, I.* II-Zustand des O_2 -Moleküls. 1615.
- Budruss, Reinhold s. Boesler, Johannes* 2310.
- Buechner, W. W., Braams, C. M. and Sperduto, A.* Inelastic proton scattering from vanadium. 1568.
- Buechner, W. W. s. Bockelman, C. K.* 1785.
- *s. Browne, C. P.* 63.
- *s. Paris, C. H.* 2372.
- *s. Sperduto, A.* 412, 2013.
- Bückle, H.* Nomogramm für die Mikrohärtprüfung. 2541.
- Buehler, E. s. Fuller, C. S.* 1028.
- Bühler, Hans.* Eigenspannungen in statisch beanspruchten Stäben. 739.
- *H. H. s. Clusius, K.* 902.
- Bünnagel, R.* Meßverfahren der PTB bei der Beglaubigung von Normalquarzplatten für die Zuckerindustrie. 2526.
- Herstellung und Verwendung eines gegen Erschütterungen unempfindlichen Quecksilberspiegels als Ebenheitsnormal. 2527.
- Bueren, H. G. van.* Gitterfehler und plastische Deformation von Metallen. II. Verhalten von Gitterfehlern während der Deformation. 1729.
- Elektrischer Widerstand und plastische Deformation von Metallen. 1214.
- Buerger, M. J.* Arrangement of atoms in wollastonite-type crystals. 2067.
- Bugg, W. s. Stier, P. M.* 1394.
- Bugosh, John, Yeager, Ernest, Hovorka, Frank and Dietrick, Harry.* High frequency electroacoustical effect. 2163.
- Buhl, R. s. Seifert, H.* 1203.
- Bulewicz, Elzbieta M., James, C. G. and Sugden, T. M.* Photometric investigations of alkali metals in hydrogen flame gases. II. Study of excess concentrations of hydrogen atoms in burnt gas mixtures. 2329.
- Bullard, Sir Edward.* Discussion on magneto-hydrodynamics. 817.
- *E. C., Seligman, Henry and Putman, John L.* British standard of radioactive iodine (^{131}I). 1933.
- Bulliard, Hubert s. Aigrain, Pierre* 473.
- Bullis, W. M. and Krag, W. E.* Hall effect and magnetoresistance in n-type germanium. 1433.
- Bullock, L. s. Holmgren, H. D.* 1373.
- *M. L. s. Holmgren, H. D.* 1583.
- Bullough, K. s. Browne, I. C.* 1081.
- Bullough L. s. Kaiser, T. R.* 2241.
- *R. and Bilby, B. A.* Uniformly moving dislocations in anisotropic media. 109.
- *s. Bilby, B. A.* 1627.
- Bumiller, F. und Staub, H. H.* Präzisionsmessung einiger p , γ -Resonanzen. 1150.
- , — und *Weaver, H. E.* Präzisionsmessung einiger Protonresonanzen an leichten Kernen. 2380.
- , *Meyer, V., Staub, H. H. und Winkler, H.* Elektrische Einrichtungen für einen van de Graaff-Generator. 39.
- Bunbury, D. St. P., Devons, S., Manning, G. and Towle, J. H.* Measurement of γ -transition lifetimes by recoil methods. II. M1 transitions in 7Li and 7Be . 1150.
- *s. Devons, S.* 2379.
- Bunce, Elizabeth T. s. Mohler, Nora M.* 1919.
- Bunde, E., Sewkor, A., Rajewsky, B. und Jaeger, R.* Verifizierung des r bei Röntgenstrahlen im Bereich 5 kV bis 50 kV Erzeugungsspannung. 1079.
- *s. Thoraues, R.* 1693.
- Bundel, A. A.* Zustand der Aktivatoren in Kristallphosphoren. 1893.
- Bundy, F. P. and Strong, H. M.* Measurement of temperatures in flames of complex structure by resonance line radiation. III. Absolute intensity measurements at high resolution. 2328.
- Bundy, F. P. s. Strong, H. M.* 2328.
- Buneman, O.* Magnetron theory, with particular reference to some recent publications. 852.
- Bunge, K.* Elektronischer Steuermechanismus für einen Niederspannungsfunkenerzeuger. 506.
- *M.* Picture of the electron. 6.
- Bungenberg, H. G. de Jong, Loeven, W. A. and Weyzen, W. W. H.* Elastic-viscous oleate systems containing KCl. 1. Elastic properties as a function of the oleate concentration. 2. Hypothesis on the state of the oleate in the elastic viscous oleate system. 809.
- Bunker, M. E. and Starner, J. W.* Decay of Ti^{51} and Cr^{51} . 589.
- , *Mize, J. P. and Starner, J. W.* Decay of Rh^{104} and Rh^{101m} . 1369.
- *s. Brolley, J. E. jr.* 1539.
- *s. Browne, C. I.* 65.
- *s. Duffield, R. B.* 964

- Bunker M. E. s. Mize, J. P. 1366, 2028.
 Bunn, C. W. and Daubeny, R. de P. Polarizabilities of carbon-carbon bonds. 1192.
 Robert Wilhelm Bunsen. 894.
 Burbank, Robinson D. Upper level precession photography and the Lorentz-polarization correction. I. 104.
 Burch, D. S., Dunn, G. H., Geballe, R. and Madsen, V. M. Failure of Schottky theory for the positive column of O_2 . 1048.
 —, P. R. J. and Appleby, D. B. Assay of γ -radiation from the human body. 1080.
 Burcham, W. E. Range energy relation for protons of intermediate energy in air. 2035.
 — and Freeman, J. M. Disintegration of boron-10 by protons. 2012.
 —, Symonds, J. L., and Young, J. D. Production of ^{11}C from carbon by protons of energy between 200 and 950 MeV. 571.
 — s. Allen, R. A. 77.
 Burde, J. and Cohen, S. G. Recoil broadening of internal conversion lines associated with alpha decay. 1582.
 — s. Deutsch, F. 230.
 Burdecki, Feliks. Berufung des Naturforschers. 533.
 Burden, F. A. s. Burgoyne, J. H. 2330.
 Bureau, A. J. s. Hammer, C. L. 1328.
 Burford, A. O., Perkins, J. F. and Haynes, S. K. Relative intensities of the radiations from Hf^{175} . 1549.
 Burge, E. J., Fujimoto, Y. and Hossain, A. Optical model applied to the elastic scattering of nucleons by various light nuclei. 773.
 Burgener, J. E., Gurney, J. F. and Rudnik, N. Spectrochemical analysis of uranium and thorium in low-grade ores. 505.
 Burger, Alexander. Bestimmung der Größenordnung der Druckverhältnisse in Hochvakuumanlagen mit Hilfe der Fluoreszenzerscheinungen. 192.
 —, H., Lehmann, J. and Mayer, U. Anwendung der Simultandosimetrie bei der intravaginalen Röntgenbestrahlung der Parametrien. 1694.
 — s. Kornetzki, M. 1210.
 —, R. M., Farnsworth, H. E. and Schlier, R. E. Adsorption of hydrogen and oxygen on germanium. 2472.
 Burger, Alexander s. Farnsworth, H. E. 638.
 Burgers, W. G. s. Ginneken, A. J. J. van 1008.
 — s. Tiedema, T. J. 1269.
 Burgeson, J. W. s. Melvin, M. A. 1503.
 Burgess, R. E. Low frequency noise in illuminated germanium diodes. 136.
 — a. c. admittance of temperature-dependent circuit elements. 463.
 — Carrier concentration disturbances in semiconductors. 472.
 — Reduction of noise in photoconductive cells. 653.
 — Electrical oscillations in thermistors and germanium point-contact rectifiers. 1039.
 — Turnover phenomenon in thermistors and in point-contact germanium rectifiers. 1436.
 Burghoff, H. s. Becker, E. W. 220.
 Burgoyne, J. H. and Burden, F. A. Explosive decomposition of ethylene oxide. 2330.
 Burgt, C. M. van der, Gevers, M. und Wijn, H. P. J. Meßmethoden zur Bestimmung einiger magnetischen Eigenschaften von Ferrocube-Werkstoffen. 2451.
 Burhop, E. H. S. Effect of finite nuclear size on electron pair production. 1130.
 — and Marriott, R. Destruction of metastable helium atoms by collision-induced radiation. 1614.
 Buri, H. s. Schäfer, Kl. 639.
 Burkardt, Lohr A., Moore, Donald W., McEwan, William S. Apparatus for the rapid determination of freezing point diagrams. 12.
 Burke, jr. Edward W. Isotope shift in the first three spectra of boron. 1809.
 Burkhard, E. L. and Lewis, J. H. Ionization of air by gamma rays. 1464.
 Burkhardt, B. Theorie und Praxis der elektronenmikroskopischen Stereoaufnahmen. 4. Elmigraph I, neues Gerät zur räumlichen Ausmessung und Kartierung von elektronenmikroskopischen Bildpaaren. 1469.
 —, J. L. Nuclear scattering of lowenergy photons. 1604.
 —, Winhold, E. J. and Dupree, T. H. Photoexcitation of the isomeric state of indium-115. 2015.
 Burkhardtmaier, Wolfgang. Hochfrequente Filterprobleme beim Fernsehsender. 1453.

- Burkhart, K. et Selzer, E. Analyse de la variation de forme sinusoidale sur la déclinaison magnétique du 11 avril 1954. 1086.
- Burkig, J. W., Schrank, Glen E. and Richardson, J. Reginald. Proton-proton scattering at 19.6 Mev. 1797.
- , V. C. and MacKenzie, K. R. Relative stopping power of some metallic elements for 20-Mev protons. 1797.
- Burlage, jr. Henry s. Bolz, Ray, E. 1965.
- Burlew, John S. s. Potnis, V. R. 1366.
- Burnelle, Louis s. Duchesne, Jules 622.
- Burnett, C. R. Isotope shift in the ionized spectrum of carbon. 1808.
- , L. C. and Hawkes, M. Dekatron in nuclear instrumentation. 2173.
- Burnham, Robert W. and Clark, Joyce R. Color memory test. 701.
- and Newhall, Sidney M. Color perception in small narrow test fields. 2225.
- Burns, Kevin s. Adams, Kenneth B. 1678.
- , Laurence. Alternative explanation of the Waymouth-Bitter experiments. 1266.
- Burnside, Phillips B. and Bell, E. E. Radiant power-slit width relationship for an infrared spectrometer. 1882.
- s. Bell, E. E. 1744.
- Burr, E. J. Sharpening of observational data in two dimensions. 1301.
- Burri, Conrad. Theorie und Praxis der Drehkompensatoren nach Berek und Ehringhaus. 2525.
- Burrows, B. A. s. Hine, G. J. 344.
- , H. B., Green, T. S., Hinds, S. and Middleton, R. Investigation of deuterium induced reactions by magnetic analysis. III. Results for neon and argon. 2036.
- Burrus, C. A. and Gordy, Walter. One-to-two millimeter wave spectroscopy. III. NO and DI. 436.
- , Benjamin, Ben and Livingston, Ralph. One-to-two millimeter wave spectra of TCl and TBr. 786.
- Burson, S. B., Jordan, W. C. and LeBlanc, J. M. Decay of $^{32}\text{Ge}^{75\text{m}}$ (49 sec), $^{32}\text{Ge}^{77\text{m}}$ (52 sec) and $^{32}\text{Ge}^{77}$ (12 hr). 69.
- , —, — Decay of $^{22}\text{Ti}^{51}$ (5.8 min). 597.
- , LeBlanc, J. M. and Martin, D. W. Radiations from $^{50}\text{Sn}^{126}$ (9.7 d and 9.5 m). 1158.
- s. Jordan, W. C. 581.
- s. LeBlanc, J. M. 585, 956.
- s. Martin, D. W. 967, 1158.
- Burstall, F. H., Davies, G. R. and Wells, R. A. Inorganic chromatography on cellulose. Part III. Use of columns of cellulose for the separation and determination of metals. 369.
- Burstein, E., Davisson, J. W. and Sclar, N. Low frequency dielectric loss peaks in KCl containing divalent cation impurities. 482.
- , Picus, G., Henvis, B. and Lax, M. Optical properties of group III elements in silicon. 2123.
- s. Lipson, H. G. 2123.
- s. Sclar, N. 1025.
- s. Teitler, S. 2124.
- , Elias s. Lax, Melvin 1651.
- Burtin, Robert. Réalisation par apodisation d'un objectif à champ homogène. 321.
- Burton, J. T. A. s. Ziebland, H. 748.
- , Milton, Berry, Paul J. et Lipsky, S. Luminescence induite par les radiations. I. Solutions ternaires et quaternaires de cyclohexane, benzène, p-terphényle et d'oxygène. 555.
- , W. K. Canonical invariance in Lagrangian quantum mechanics. 1495.
- and Touschek, B. F. Commutation relations in Lagrangian quantum mechanics. 1925.
- Burwell, J. R., Huggett, R. W. and Thompson, R. W. Evidence concerning the specific identity of the Θ° decay fragments and the statistics of the Θ° particle. 939.
- , — Example of τ^+ -decay in flight. 1335.
- s. Kim, Y. B. 34, 394, 938, 1520.
- s. Thompson, R. W. 43.
- Busby, J. and Richardson, E. G. Propagation of ultrasonics in suspensions of particles in a liquid. 2449.
- Busch, G. Graphische Behandlung der Entartung eines Eigenhalbleiters. 129.
- Method to visualize degeneracy of an intrinsic semi-conductor. 472.
- Hochempfindliches Nullinstrument für niederfrequente Wechselspannungen. 1637.
- Metall-Eigenhalbleiter-Kontakt. 2467.
- und Jaggi, R. Messung des Hall-Effekts in zirkularen Magnetfeldern. 1649.
- und Müller, K. A. Mangan-Störstellen im grauen Zinn. 473

- Busch, G. und Winkler, U.* Elektrische Leitfähigkeit von Mischkristallen intermetallischer Verbindungen. 1653.
- Busch, Hans.* 2254.
- , *Heinz.* Dünnsche Aufdampfschichten auf Flüssigkeitsoberflächen (Glycerin) 1013.
- Buschert, R., Geib, I. G. and Lark-Horowitz, K.* Structure of liquid tellurium. 110.
- Busetti, G.* Masse dei nuclei con $Z \geq 40$. 764.
- Bush, William R.* Foveal light adaptation as affected by the spectral composition of the test and adapting stimuli. 2553.
- *s. Boynton, Robert M.* 698.
- Bushman, M. s. Ferlazzo, G.* 2229.
- Businaro, U. L. and Gallone, S.* Saddle shapes, threshold energies and fission asymmetry on the liquid drop model. 1138.
- Busing, William R.* Design of photoelectric Ramn apparatus. 2193.
- and *Kauzmann, Walter.* Time dependence of the potential in electrode reactions. 2144.
- Busnel, M. C. s. Vago, C.* 705.
- , *René-Guy et Degrois, Maurice.* Observations de phénomènes se développant dans les liquides soumis à des ultrasons en présence de divers gaz à des pressions variables. 744.
- Bussey, H. E. s. Birnbaum, George* 2583.
- Busso, C. J. s. Schaefer, A. A.* 1405.
- Busz-Peuckert, G. und Finkelnburg, W.* Anodenmechanismus des thermischen Argonbogens. 1236.
- und *Queisser, H. J.* Bestimmung der Temperatur von Lichtbögen durch Schwärzungsvergleich mit einem ähnlichen Bogen bekannter Temperaturverteilung. 2494.
- Butcher, P. N.* Treatment of lossy periodic waveguides. 1877.
- Butement, F. D. S.* Spectrum of the radiation emitted during μ -meson capture by carbon. 2003.
- Butenuth, Gottfried, Glemser, Oskar und Koch, Klaus v.* Organische Folien mit hoher Resistenz gegen Elektronenstrahlen. 325.
- Butler, C. C. s. Armenteros, R.* 1999.
- , *F.* Transistor waveform generators 1668.
- Butler, J. s. Hird, B.* 62.
- , *J. A. V.* Effects of ultra-violet light on nucleic acid and nucleoproteins and other biological systems. 875.
- , *J. W.* Gamma-ray thresholds in the $F^{19} (d, n \gamma) Ne^{20}$ reaction. 958.
- and *Holmgren, H. D.* Energy levels in F^{19} . 1562.
- *s. Holmgren, H. D.* 1788.
- *s. Kunz, W. E.* 1373.
- , *K. H., Jerome, C. W. and Waymouth, J. F.* Electroluminescent lamp: light source. 2539.
- *s. Berin, Martha* 167.
- , *S. T. s. Austern, N.* 85.
- *s. Blatt, J. M.* 1720.
- *s. Riddiford, L.* 2043.
- Butterfield, John V. s. Benford, James R.* 1062.
- Butters, R. G. and Myers, H. P.* Structure and magnetic properties of the alloy Mn_3AlC . 336.
- , — Low temperature attachment for an X-ray goniometer. 2065.
- *s. Polonis, D. H.* 195.
- Butterworth, I.* Photometric measurement of ionization in cloud chambers. 1120.
- Buttler, H. v.* Neubestimmung der Halbwertszeit des ThB (^{212}Pb). 2009.
- , *W. M. und Muscheid, W.* Bedeutung des elektrischen Kontaktes bei Untersuchungen an Kadmiumsulfid-Einkristallen. II. 1225.
- Button, Peter A. s. Stamm, Robert F.* 159.
- Byule-Bodin, M. s. Grivet, P.* 1917.
- et *Dautreppe, Daniel.* Résonance quadrupolaire de Cl^{35} et Cl^{37} dans $p-C_6H_4 Cl_2$. 1642.
- et *Monfils, André.* Résonance quadrupolaire électrique du chlore dans Cl_2 Hg. 1643.
- Buzzard, R. W., Liss, R. B. and Fickle, D. P.* Titanium-uranium system in the region 0 to 30 atomic percent of titanium. 1075.
- Byatt, William J.* Elastic scattering of slow electrons by atoms. 1607.
- Bycroft, G. N.* Forced vibrations of a rigid circular plate on a semi-infinite elastic space and on an elastic stratum. 730.
- Byers, Horace R.* Atmospheric electricity. 526.
- , *R. and Braham jr., Roscoe R.* Thunderstorm structure and dynamics. 527

Byram, E. T., Chubb, T. A. and Friedman, H. γ -ray absorption measurements of density of the upper atmosphere. 1916.

C

Cabannes, Henri. Étude de la courbure au sommet d'une onde de choc attachée dans un écoulement plan non stationnaire. 1505.

—, Jean et Dufay, Jean. Développement des applications des interférences. Etude interférentielle du rayonnement de l'oxygène atomique dans la haute atmosphère. 1911.

Cable, Joe W., Nyholm, Ronald S. and Sheline, Raymond K. Spectra and structure of dicobaltoctacarbonyl. 1620.

Cabrera, N. and Levine, M. M. Dislocation theory of evaporation of crystals. 2420.

Cacheris, J. C., Jones, G. and Diehl, L. Magnetic tuning of klystron cavities. 2517.

— s. Kalmus, Henry P. 918.

Cacho, C. F. M., Grace, M. A., Johnson, C. E., Knipper, A. C., Scurlock, R. G. and Taylor, R. T. Nuclear orientation of cerium 141. 1140.

Cachon, A. s. Daudin, J. 2046.

Cade, R. and Vickers, D. O. Electrostatic centre of a conductor. 1017.

Caffey, J. E. and Goodfellow, T. L. Electrical effects associated with the mechanical deformation of single crystals of alkali halides. 1654.

Caglioti, V., Ascenzi, A. and Scrocco, M. Infrared spectrometric research on the relation between ossein and inorganic bone fraction. 1691.

— — — Ricerche spettrofotometriche nell'infrafrasso sulle relazioni tra sostanza organica e inorganica nel tessuto osseo. 1276.

Cagnac, Bernard, Manus, Claude, Béné, Georges et Extermann, Richard. Résonance magnétique nucléaire dans les champs très faibles. II. Etude de la résonance magnétique nucléaire entre 2 et 0,5 Gauss. 815.

— s. Brossel, Jean. 250.

Cagnet, Michel s. Arnulf, Albert 2217.

Cahill, Joseph M. and Mueller, Charles R.

Cagnet, Michel s. Arnulf, Albert 2217.

Cahill, Joseph M. and Mueller, Charles R. Distortion of inner shell electrons. 1300.

—, W. F. s. Trees, Richard E. 2403.

Cahn, C. R. s. Balabanian, N. 2513.

Caianiello, E. R. Non-perturbative expansions. 188.

— Perturbative expansions. 718.

— Number of Feynman graphs and convergence. 1296.

Caizergues, R. s. Bertrand, R. 337.

Calbick, C. J. and Koonce, S. E. Void formation during drying of plastic films. 1889.

Calcamuggio, G. L. s. Haller, W. 1304.

Calderwood, J. H., Cooper, R. and Wallace A. A. Electric breakdown of alkali halide crystals. 2497.

Caldin, E. F. and Long, G. Rates and equilibria of some reactions of trinitrotoluene and related substances from -80 to $+20^\circ\text{C}$. 114.

Caldirola, P. Classical electron. 1717.

Caldwell, D. O. Masses of the new particles and the range-energy relation. 42.

— Range-energy relation and masses of the new particles. 1338.

— and Pal, Yash. Photometric mass determinations in a multiplate cloud chamber. 1758.

— and Richardson, J. Reginald. Elastic scattering of 20.6-Mev protons by deuterons. 975.

— R. S. and Fan, H. Y. Infrared properties of selenium. 1433.

Cali, J. P. s. Hudgens, J. E. 1982.

Calder, J. van. Arbeitstagung Spektralanalyse in Weimar. 535.

Calkins, V. P. Radiation effects on reactor materials: Nonmetals. 1128.

Callaway, J. and Woods, R. D. Nucleon distribution in Ca^{40} . 1139.

—, Joseph, Electron band structure of iron. 124.

— Ferromagnetism of iron. 276.

— Mach's principle and unified field theory. 359.

— Orthogonalized plane wave method. 367.

— Interaction of π -mesons with light nuclei. 1527.

— s. Blount, Eugene 1652.

— s. Herman, Frank 540.

Callcott, T. G. s. Broadbent, S. R. 2549.

Callen, Herbert B. Electronic structure, infrared absorption and Hall effect in tellurium. 472.

- Callendar, M. V.* High frequency effects in germanium diodes. 294.
- Callendine, George W. jr. and Morton, Joseph L.* Device for loading cobalt-60 cartridges in tubing for cancer therapy. 346.
- Callihan, Dixon.* Southeastern Section at the University of Florida, Gainesville, Florida, April 7, 8 and 9, 1955. 535.
- *s. Williams, D. V. P.* 622.
- Caloi, P. e Spadea, M. C.* Sesse del Lago di Garda. IV. Oscillazioni libere del bacino orientale. 2580.
- Calvert, J. M., Jaffe, A. A. and Maslin, E. E.* Investigation of the reaction $^{19}\text{F}(\text{d}, \text{n})^{20}\text{Ne}$ using a new fast-neutron spectrometer. 572.
- — — Reduced widths from stripping reactions. 1592.
- — — *Litherland, A. E. and Maslin, E. E.* Neutron groups from deuteron stripping by ^{23}Na , ^{27}Al and ^{31}P . 603.
- Calvet, Édouard.* Thermocinétique de l'adsorption d'acétone par les nitro-celluloses comparée à celle de l'adsorption par les corps cristallisés. 1321.
- and *Hermans, P. H.* Heat of crystallization of cellulose. 455.
- Camac, M., Halbert, M. L. and Platt, J. B.* L-series X-rays from π -mesonic atoms. 1345.
- , *McGuire, A. D., Platt, J. B. and Schulte, H. J.* K-series X-rays from π -mesonic atoms. 1344.
- Characteristics of the synchrotron beam. 935.
- Cambel, Ali Bulent s. Schaffer, Allan* 1952.
- Cambray, R. S. s. Marsh, J. B.* 2230.
- Cameron, A. E., Herr, W., Herzog, W. and Lundén, A.* Isotopen-Anreicherung beim Brom durch elektrolytische Überführung in geschmolzenem Bleibromid. 1349.
- , *A, G. W.* Evolution of elemental abundances resulting from neutron capture in stars. 1746.
- , *J. R. s. Weinmann, J. A.* 1125.
- Campá, J. Pahissa s. Ricci, E.* 578.
- Campagna, Frank and Kreith, Frank.* Supersonic ramjet diffusers. 1950.
- Campbell, C. G., Henderson, W. J. and Kyles, J.* High-energy components of the β -particle spectrum of MsTh_2 . 2032.
- , *D. S. and Stirland, D. J.* Modified replica technique and its application to the examination of etched single crystals of barium titanate. 1237.
- Campbell, E. C., Pelle, R. W., Maienschein, F. C. and Stelson, P. H.* Decay and fast neutron excitation of $\text{Zr}^{90\text{m}}$. 1153.
- *s. Stelson, P. H.* 410.
- , *I. D.* Gaseous oscillations within a perturbed spherical resonator. 2300.
- , *I. G. s. White, D. F.* 2338.
- , *J. B.* Cheltenham three-hour-range indices K for January to March, 1954. 520.
- Cheltenham three-hour-range-indices K for April to June, 1954. 520.
- Cheltenham three-hour-range indices K for July to September, 1954. 885.
- , *J. E. and Heaps, H. S.* Transmission of stress through a thick slab supported by a yielding foundation. 1305.
- , *J. G. and Boyle, A. J. F.* Energy resolution of γ -radiation up to 18 MeV by sodium iodide scintillation counters. 1979.
- , *Robert.* Séries de polynômes orthogonaux se prêtant au calcul explicite des sommes de Fejer. 1921.
- , *W. s. Ostrow, S. M.* 524.
- Camras, M.* Developments in magnetic recording. 742.
- Canac, F.* Propagation, interférence, réflexion, absorption, diffusion des ondes sonores et ultra-sonores visualisées par la méthode des stries. 1732.
- et *Gavreau, V.* Ultra-sons dans l'air et leurs applications. 1738.
- Candy, C. J. N.* Specification of the properties of the thermistor as a circuit element in very-low-frequency systems. 2137.
- Vector method for amplitude-modulated signals. 2183.
- Cano-Corona, O. and Pepinsky, R.* Concerning present limitations of X-ray analyses of organic natural products. 2221.
- Cantow, H.-J. s. Schulz, G. V.* 2436, 2522.
- Cap, F. and Gröbner, W.* Solution of the deuteron problem, and its application to a regular potential. 8.
- Nonlinear pseudoscalar meson theory. 2271.
- Capildeo, R.* Newtonian systems. 1923.
- Caplan, P. s. Theissing, H. H.* 1696.
- *s. Theissing, H. H.* 349.
- , *S. R. s. Arnold, R.* 2432, 2437.

- Capocaccia, A. A.*, Da Galileo all'era atomica. Evoluzione del macchinismo e del meccanicismo. 1490.
- Capps, R. H.* Consequences of gauge invariance for electromagnetic transitions. II. 1929.
- and *Holladay, W. G.* Electromagnetic properties of the nucleon in a finite source theory. 1762.
- Capron, P., Faes, M. and Tavernier, G. C.* Tolerance flux of thermal neutrons. 1988.
- and *Crèvecoeur, E.* Comparative retentions of the nuclear isomers of Br^{80} in the propyl bromides. 57.
- et *Gilly, L. J.* Existence d'une différence dans la rétention des isomères nucléaires du $^{80}_{35}\text{Br}$ à la suite de la capture radiative de neutrons. 58.
- Carassa, Francesco*, Multiplex telefonici ad impulsi di alta precisione e stabilità di fase. 1243.
- Carbone, Robert s. Stone, Gerald* 1394.
- , *R. J. s. Everhart, Edgar* 1394, 1584.
- , *Stone, Gerald and Everhart, Edgar*. Cross section measurements for large angle collisions of He, Ne and A ions with argon gas atoms at energies from 25—100 kev. 1394.
- Care, N. s. Peirson, G. F.* 1054.
- Careri, G. and Paoletti, A.* Self-diffusion in liquid indium and tin. 636.
- , *Giorgio*. Gaussian approximation for the probability density of a molecule in a cell. 381.
- Caretto, A. s. Baker, E.* 954.
- , *A. A. jr. and Friedlander, G.* Competition between p, pn and p,2p reactions on C^{12} . 1772.
- Cargyle, Martha Ann s. Griffing, Virginia* 1102.
- Cario, G. und Stille, U.* Höhenbestimmung des Natrium-Dämmerungsleuchtens. 178.
- — Auftreten der Natrium-D-Linien im Nachthimmelleuchten und im Nordlicht. 708.
- Carlbohm, L.* Determination of the diffusion length of thermal neutrons in graphite. 2348.
- Carleton, N. P. and Bills, D. G.* Derivation relating the pumping speed of an ionization gauge to the quantity of gas pumped. 1097.
- s. *Bills, D. G.* 1097.
- Lens for charged particles. 499.
- Carlin, H. J.* Gain-bandwidth limitations on equalizers and matching networks. 1670.
- Carlisle, S. S.* Physical Society's Exhibition — London, 1955. 1491.
- Carlson, B. C.* Periodic ellipse of the strongfocusing equation. 559.
- and *Talmi, I.* Pairing effects in Coulomb energies and the radii of mirror nuclei. 1530.
- s. *Talmi, I.* 48.
- , *C. R. s. Matheson, W. E.* 1774.
- , *R. O.* Electrical properties of near-degenerate boron-doped silicon. 1859.
- , *R. R. and Bashkin, S.* Excited states of O^{16} from proton bombardment of N^{15} . 1366.
- s. *Bashkin, S.* 411, 597, 1362, 1551.
- , s. *Nelson, E. B.* 64, 1163.
- Carlsson, C. and Danielsson, Lars.* Direct-reading spectrochemical determination of phosphorus in steel and iron ores. 503.
- Carman, E. H.* Technical properties of iron powder magnets. 1420.
- , *P. C.* Diffusion and flow of gases and vapours through micropores. IV. Flow of capillary condensate. 2292.
- , *P. D.* Control and interferometric measurement of plate flatness. 2520.
- Carmichael, B. M. s. Miller, D. W.* 2375.
- , *Hugh and Steljes, John F.* Cosmic-ray ionization bursts in an unshielded 8-inch pressurized sphere at sea level. 1605.
- , *J. H. s. Varnerin, L. J. jr.* 1097.
- Carne, E. B. s. Guile, A. E.* 380.
- Caro, D. E.* Theory of the operation of a phonic motor. 1663.
- *Martin, L. H. and Rouse, J. L.* Variable energy cyclotron. 1328.
- Carome, E. F.* Theory of the photodisintegration of Li^6 . I. 405.
- Caron, Michel.* Mesure de la conductibilité électrique à basse température de différents échantillons d'aluminium de haute pureté. 1855.
- Carothers, J. E. and Andre, C.* π^+/π^- ratios produced by 340-Mev protons at 0° . 1524.
- Carpéni, Georges s. Joulé, Ludovic.* 1403.
- Carpenter, Robert O' B. McDonough, Ralph and Hapgood jr., Norman.* Hydrogen-deuterium analysis with a Fabry-Perot interferometer. 765.
- Carr, C. W. s. Kolthoff, I. M.* 451.

- Carr, Laurence H. A.* Theory of dimensions. 542.
- , *R. J. s. Glass, R. A.* 577.
- Carrara, N.* Problemi attuali di fisica delle microonde. 1244.
- *Tito Fazzini,*
- , *Fazzini, Tito, Ronchi, Laura e Toraldo di Francia. Giuliano* Momento di rotazione del campo elettromagnetico 1093.
- Carrelli, A. and Gaeta, F. S.* Duration of the diffraction grating in relation to the state of the powders in suspension. 641.
- and *Grossetti, E.* Thermoelastic waves in liquids. 2311.
- Carrete, José Calleja.* Estudio del fraguado y endurecimiento de los aglomerantes hidráulicos. Acceleración del fraguado mediante calefacción por efecto Joule. 2547.
- Carrié, C.* Fluoreszenz der Hautoberfläche 347.
- Carrière, Zéphyrin.* Exploration par le fouet des deux faces du mur du son. 1313.
- Carroll, Paul E.* Contact electrification in a metal-metal system. II. Results for mercury -steel. 843.
- Carson, T. R. s. Bates, D. R.* 723.
- Carswell, D. J. Ferguson, J. and Lyons, L. E.* Photo- and semi-conductance in molecular single crystals. 293.
- Carte, A. E.* Thermal constants of pyrophyllite and their change on heating. 748.
- Carter, C.* Molecular orbital wave functions for methane and silane. 1811.
- , *David.* Phase centers of microwave antennas. 1879.
- , *D. E. and Givens, M. P.* Soft X-ray absorption of thin films of iron and iron oxide. 2403.
- , *G. F., Margrave, John L. and Templeton, David H.* High-temperature crystal modification of KO_2 . 1008.
- , *Robert Emerson s. Brennan, James, T.* 1694.
- , *R. O. and Wheeler, L. K.* Photo-telegraph transmitter-receiver utilizing sub-carrier frequency modulation. 1879.
- , *R. S.* Resonance parameters in U^{238} . 1152.
- and *Street, J. C.* Collimated X-ray beam for study of distortion in cloud chambers. 387.
- Carter C., Hughes, D. J. and Palevsky, H.* Energy distribution of cold neutrons scattered by lattice vibrations. 1594.
- *s. Harvey, J. A.* 1549.
- , *W. C. s. Bennett, F. D.* 20.
- Cartwright, D. E.* Determining the directions of waves from a ship at sea. 1286.
- , *D. K. Green, L. L. and Willmott, J. C.* Angular distribution of the α -particles from the ${}^7\text{Li}(p, \alpha)$ reaction. 2382.
- , *J.* Electron microscopy of airborne dusts. 2094.
- Cartz, L.* Thermal vibrations of atoms in cubic crystals. I. Temperature variation of thermal diffuse scattering of X-rays by lead single crystals. 792.
- II. Amplitude of atomic vibrations. 792.
- Carvalho, de H. G. Marshall, J. and Marshall, L.* Polarization of protons by scattering from beryllium. 416.
- Carver, C. E. jr. s. Ippen, A. T.* 194.
- , *J. G. and Godlove, T. F.* Slow-neutron capture resonances in Te, W and In. 1562.
- *J. G. s. Godlove, T. F.* 556.
- , *J. H. and White, G. K.* Methylene bromide as a quenching agent in Geiger-Müller counters. 223.
- , *Hay, H. J. and Titterton, E. W.* Cross sections for the reaction ${}^{12}\text{C}(\gamma, 3\alpha)$ in the energy range 12—18 MeV. 768.
- Carwile, Nesbit L. s. Geil, Glenn W.* 508.
- Casanova, J. s. Catalá, J.* 972.
- Casas, J. y Barcala, J.* Esquemas de calculos opticos para máquina de calculo. 162.
- *s. Durán, A.* 311, 496, 689, 896.
- Casassa, Edward F. and Katz, Sidney.* Thermostat for light scattering measurements. 1199.
- Case, K. M.* Decomposition of the generalized Duffin-Kemmer algebra. 2.
- Biquadratic spinor identities. 535.
- Hamiltonian form of integral spin wave equations. 1930.
- Representations of the Duffin-Kemmer algebras. 2259.
- , *Karplus, Robert and Yang, C. N.* Experiments with slow K mesons in deuterium and hydrogen. 1995.
- *s. Mendlowitz, H.* 606, 2038.
- *s. Moldauer, P. A.* 6.
- Casey, Donald s. Steen, Douglas,* 544.
- Casimir, H. B. G. F. M. Penning.* 1290.
- Quantum electrodynamics. 2268.

- Caspari, Ernst.* Lectures of Professor Robert Pohl in Göttingen. 1919.
- , *M. E.* Directional breakdown in alkali halide crystals. 1240.
- Cass, R. S. s. Blackwell, J. H.* 1922.
- Cassatt jr., Wayne A. and Meinke, W. Wayne.* Decay scheme of Y^{92} . 1557.
- — Decay scheme of In^{107} . 2373.
- Cassebaum, H.* Beziehungen zwischen Redoxpotential und Dehydrasewirkung von Isatinen. 829.
- Cassel, Hans M.* Thermal expansion and aerodynamic stability of open flames. 31.
- Cassen, Benedict and Curtis, Lawrence R.* Luminescence measurements of Roentgen dosage. 2227.
- Cassidy, C. J. A. s. Hollway, D. L.* 1659.
- Cassagnol, Ch.* Jon source for intense beams. 1985.
- Castagnoli, C., Cortini, G. and Manfredini, A.* Measurement of ionization in nuclear plates. 387.
- — — K-meson and hyperon events. 392.
- s. *Chamberlain, C.* 2003.
- Castaing, R.* Examen direct des métaux par transmission en microscopie et diffraction électroniques. 2541.
- et *Descamps, Jacques.* Bases physiques de l'analyse ponctuelle par spectrographie X. 2210.
- Castelliz, Lotte.* Ferromagnetismus von Legierungen der Übergangsmetalle mit Elementen der B-Gruppe. 1270.
- Castillo, Del Snyder, A. Grodzins, L. and Chang, W. Y.* Nuclear interaction of sea-level, cosmic-ray particles with carbon and lead. 1390.
- s. *Snyder, A.* 1390.
- Castle jr., J. G.* Systematic g-shift for free electrons. 2459.
- , *J. W. s. Hamilton, J. F.* 1466.
- Castoldi, Luigi.* Algoritmo della funzione di Dirac. Giustificazione elementare e applicazioni ad equazioni classiche. 1091.
- Particolare sistema ortonormale per lo sviluppo in serie di una funzione assegnata su un intervallo infinito. 1491.
- Nuovo universo dinamico relativistico. 2236.
- Caswell, E. G. s. Millard, B.* 1959.
- , *R. S. Brabant, J. M. and Schwebel, A.* Disintegration rate of carbon-14. 955.
- Catalá, J. Senent, F. y Casanova, J.* Distribución angular de los protones producidos en el bombardeo del carbono 12 por deuterones. I. 972.
- Catalá, J. s. Rotblat, J.* 1977.
- Catalán, M. A.* Configuraciones electronicas $3d^{n-2} 4s^2$ y $3d^{n-2} 4s5s$ en los elementos del primer grupo de transición. 620.
- Catalano, E. s. Nachtrieb, N. H.* 2426.
- s. *Nachtrieb, Norman H.* 2426.
- Cauchois, Y.* Niveaux d'énergie des atomes de numéro atomique inférieur à 70. 1183.
- Spectre d'émission K de l'aluminium dans la région de la bande de conductibilité. 1804.
- Caulton, Martin s. Blau, M.* 423.
- Cavanaugh, R. E. Haskin, D. M. and Schein, Marcel.* Nuclear collisions of 5.7 Bev protons and 3.0 Bev π -mesons. 1993.
- Cayless, M. A.* Analysis of gases at low pressures. 725.
- Cazenave, R.* Champ magnétique d'un courant circulaire. 2464.
- Ceccaldi, M. s. Lecomte, J.* 765.
- , *P. F. s. Rimsky, A.* 171.
- Ceccarelli, M. Quarenì, G. and Zorn, G. T.* Nuclear interaction of He-nuclei in the cosmic radiation. 56.
- , *Grilli, M., Merlin, M., Salandin, G. and Sechi, B.* Probable example of the reaction: $\pi + p = K^+ + K^- + n$. 763.
- s. *Baldo, M.* 563.
- s. *Biswas, N. N.* 2000.
- s. *Davies, J. H.* 763.
- Ceccarelli-Fabbrichesi, L. s. Biswas, N. N.* 2000.
- Celma, M. Fité, J. A. García y Torres, R. Segovia.* Contadores de cátodo externo. 756.
- Ceolin, C. and Dallaporta, N.* Possible scheme for heavy unstable particles. 1520.
- Cerepnev, A. A.* Beschaffenheit des Kupfer aktivators in Zink-Sulfid-Lumino-phoren. 1890.
- Cerf, Roger.* Recherches théoriques et expérimentales sur l'effet Maxwell des solutions de macromolécules déformables. I. Théorie de l'effet Maxwell des suspensions de sphères élastiques. II. Application de la théorie de la sphère élastique aux solutions de macromolécules en chaînes. 2431.

- Cerf, Roger.* Méthode pour déterminer la viscosité interne d'une macromolécule en chaîne par des mesures de biréfringence d'écoulement. 2432.
- et *Laville, Gaston.* Absorption des ultra-sons par les solutions de macromolécules. 1833.
- Cerfontain, H. s. Aten, A. H. W. jun.* 2024
- Certaine, Jeremiah s. Hyman, Seymour C.* 1125.
- Cester, R., Hoang, T. F. and Kernan, A.* p-p interactions at 3 Bev. 2001.
- *Kaplon, M. F. and Yekutieli, G.* Two examples of rare K^+ -decays in emulsion. 1976.
- *s. Kernan, A.* 1796.
- Cellini, Beatrice B. s. Bozorth, R. M.* 2456.
- Cevolani, M. e Petralia, S.* Assorbimento di ultrasuoni in sistemi di liquidi parzialmente miscibili. 741.
- Chabbal, Robert.* Calcul des éléments d'un spectromètre Fabry-Perot capable d'étudier un spectre étendu. 2192.
- Chackett, G. A., Chackett, K. F., Reasbeck, P., Symonds, J. L. and Warren, J.* Excitation functions up to 980 MeV for proton-induced reactions in ^{27}Al , relative to $^{12}\text{C}(p, pn)^{11}\text{C}$. 766.
- *K. F. s. Allen, R. A.* 77.
- *s. Chackett, G. A.* 766.
- Chadwick, G. B. s. Warren, J. B.* 2011.
- *R. C. s. Chamberlain, A. C.* 2559.
- Chaffee jr., D. D.* Statistical analysis of 150-km echo. 889.
- Chaigneau, Marcel s. Guy, Jean.* 2058.
- *s. Lebeau, Paul.* 1963.
- Chaikin, M. Ss. s. Rodionow, Ss. F.* 314.
- Chait, H. N. s. Sakiotis, N. G.* 1665.
- Chakraborty, S. K. and Gupta, M. R.* Calculations on the cascade theory of showers. 2399.
- Chakraborty, D. M. s. Banerjee, B. K.* 111.
- Chaklin, F. C. s. Moore, H. R.* 1397.
- *L. P. and Fremlin, J. H.* Ionization of fast neutral deuterium atoms. 2037.
- Challande, René.* Comportement des particules sphériques conductrices microniques et submicroniques dans le champ électrique ionisé intense. 809.
- Chalmers, B. s. Atwater, H. A.* 2087.
- *s. Becker, J. H.* 1004.
- *s. Elbaum, C.* 1406.
- Chalonge, Daniel et Divan, Mlle Lucienne.* Classification stellaire à trois paramètres applicable aux étoiles des populations I et II. 2234.
- Chalvet, O., Daudel, R., Roux, M., Sandorfy, C. et Vroelant, C.* Méthode de calcul des fonctions d'onde moléculaires l'interaction de configuration. I. Règles pratiques du calcul des éléments de matrices. 367.
- Chamberlain, A. C. and Chadwick, R. C.* Deposition of airborne radioiodine vapor. 2559.
- *J. W. s. Meinel, A. B.* 523.
- *O., Segrè, E., Tripp, R., Wiegand, C. and Ypsilantis, T.* Polarization of high-energy protons in elastic scattering on helium and carbon. 85.
- *Chupp, W. W., Goldhaber, G., Segrè, E., Wiegand, C., Amaldi, E., Baroni, G., Castagnoli, C., Franzinetti, C. and Manfredini, A.* Observation of an antiproton star in emulsion exposed at the bevatron. 2003.
- *s. Tripp, R.* 973.
- *s. Ypsilantis, T.* 976.
- and *Garrison, John D.* Proton-proton scattering experiments at 170 and 260 Mev. 1375.
- *Segrè, Emilio, Wiegand, Clyde and Ypsilantis, Thomas.* Observation of antiprotons. 1759.
- Chaminade, Robert s. Koicki, Stevan.* 963.
- Champagne, Mlle Madeleine.* Détermination de la forme et des dimensions de la molécule de sérulalbumine en solution. 2550.
- Champetier, Georges.* Structure et chimie des polyamides naturels et synthétiques. 2407.
- Champion, F. C. and Dale, B.* Variations in the photoconductivity and in the electrical counting properties of diamonds. 1227.
- *s. Benny, A. H. B.* 1324.
- *K. S. W. and Brown, S. C.* Aspects of plasma resonance. 1048.
- and *Saint Maurice, A. D. de.* Ion diffusion in a uniform magnetic field. 1050.
- Chandler, D. C. s. Anderson, D. V.* 711.
- Chandrasekaran, K. S.* Influence of the degree of perfection of a crystal on the intensity of Bragg reflection. I. Measurements with calcite and rocksalt. 1821.
- Chandrasekhar, B. S. and Mendelssohn, K.* Subcritical flow in the helium II film. 631.

- Chandrasekhar, S.* Hydromagnetic turbulence. I. Deductive theory. II. Elementary theory. 818, 819.
- and *Elbert, Donna.* Polarization of the sunlit sky. 351.
- and *Herzberg, G.* Energies of the ground states of He, Li^+ and O^{6+} . 1395.
- Chandrasekharan, V. s. Ramachandran, G. N.* 2532.
- Chandratreya, P. V. s. Tawde, N. R.* 2413.
- Chang, C. H.* Velocity-dependent potential and gauge invariance of the first kind. 1716.
- and *Jacobsohn, B. A.* Elimination of the pair interaction in the pseudo-scalar meson theory. 366.
- , *Cook, C. S.* and *Primakoff, H.* Transmission of electrons through thin metallic foils. 87.
- , *Chiao-Lin s. Romualdi, James P.* 1267.
- , *Kern K. N.* Beam focusing by periodic and complementary fields. 1674.
- , *Leo S.* and *Morawetz, H.* Determination of rate of shear dependence of solution viscosity at low rates of shear. 202.
- , *S. S. L.* Two network theorems for analytical determination of optimum-response physically realizable network characteristics. 2182.
- , *W. Y.* Sea-level mesons stopped in thin Pb and Al foils. I. Possible emission of charged nuclear particles and related events. 46.
- II. Low-energy (1—5 Mev) gamma rays. 46.
- , *W. V. s. Castillo, Del* 1390.
- *s. Gupta, I. C.* 1995.
- *s. Snyder, A.* 1995.
- Chanin, Lorne M.* and *Biondi, Manfred A.* Mobilities of various ions in the noble gases. 142.
- Temperature dependence of ionic mobilities; Ne_2^+ in neon. 837.
- Temperature dependence of ionic mobilities; He^+He^+ and He_2^+ in helium. 1233.
- *s. Biondi, Manfred A.* 837.
- Chantraine, H.* Stäbchen-Sehen oder Zapfen-Sehen bei der Durchleuchtung Prüftafel für das Durchleuchtungssehen. 344.
- Verbesserung der Bildgüte der Röntgenaufnahmen. 1278.
- Chantrel, H. s. Blaise, J.* 857, 2008.
- Chanu, Jaques et Lenoble, Jaqueline.* Etude de l'effet Soret dans les solutions ioniques. I. Méthode optique et résultats pour ClK . 1830.
- Chapanis, A. s. Halsey, Rita M.* 513, 700
- and *Halsey, Rita M.* Luminance of equally bright colors. 702.
- Chapelle, J. et Tauriel, L.* Diffusion Rayleigh dans les cristaux 2066.
- et *Tauriel, Mlle Lucienne.* Etude de la diffusion Rayleigh par le quartz. 160.
- Chapin, D. M., Fuller, C. S.* and *Pearson, G. L.* Bell Solar Battery. 2478.
- Chapiro, Adolphe.* Polymérisation des composés vinyliques, amorcée par les rayons γ (I). 804.
- Distribution spatiale des radicaux libres formés dans les processus radiochimiques. 985.
- Efficacité radiochimique relative du rayonnement mixte de la pile atomique et des rayons γ . 1518.
- Action des rayons gamma sur les polymères à l'état solide. II. Dégradation du polyméthacrylate de méthyle et de l'acétate de cellulose. 1634.
- Mécanisme de la dégradation radiochimique des polymères. 1634.
- Polymérisation du chlorure de vinyle amorcée par les rayons gamma. 2435.
- , *Magat, Michel, Prévot-Bernas, Annette, et Sebban, Jeanne.* Polymérisation radiochimique des monomères vinyliques. 637.
- *s. Bouby, L.* 613.
- Chapman, F. W.* and *Matthews, W. D.* Audiofrequency spectrum of atmospheres. 2245.
- , *G. B. s. Halma, H.* 1687.
- , *K. R., Matsukawa, E., Rose, P. H.* and *Stewardson, E. A.* Absolute measurement of differential cross sections for the nuclear scattering of low energy relativistic electrons. 422.
- , *R. A. s. Harlow, M. V.* 1570.
- *s. Marion, J. B.* 1571, 1574, 2366.
- , *Seville.* Corona discharge current from aircraft. 144.
- Thundercloud electrification in relation to rain and snow particles. 529.
- , *Sydney.* Grazing-incidence integral $\text{Ch}(z, \chi)$ for monochromatic absorption in an exponential atmosphere. 1488.
- Chappellear, John.* Photoproduction of mesons in deuterium. 1522.

- Charles, A. and Sikorski, J. Ultra-violet polymerization of embedding monomers for thin sectioning. 2222.
- , D. et Warnecke, R. J. Thyatron à hydrogène. 1060.
- , G. W., Hunt, D. J., Pish, G. and Timma, D. L. Description and analysis of the spectrum of polonium. 620.
- Charlesby, A. Gel formation by mainchain fracture of long-chain polymers. 265.
- Changes in silicone polymeric fluids due to high-energy radiation. 1388.
- Viscosity measurements in branched silicones. 1630.
- and Flint, O. Construction and calibration of a 100-Curie gamma irradiator. 2042.
- and Hancock, N. H. Effect of cross-linking on the elastic modulus of polythene. 267.
- s. Alexander, P. 803.
- et Alexander, Peter. Réticulation des polymères en solution aqueuse par les rayons gamma. 637.
- Charney, Elliot. Dichroic ratio measurements in the infrared region. 1680.
- Charpak, G. et Chemla, M. Méthode simple de préparation de sources radioactives uniformes. 954.
- Charret, Michel s. Cueilleron, Jean 1813, 1865.
- Charru, A. Présentation d'un prisme creux pour l'étude de la dispersion de réfraction des liquides avec la longueur d'onde et la température. 685.
- Chartres, B. A. and Messel, H. Formulation of a general three-dimensional cascade theory. 615.
- — Angular distribution in electron-photon showers without the Landau approximation. 1802.
- and Tidman, D. A. Scattering-in correction. 930.
- Charuel, R. et Traynard, Ph. Microcalorimètre différentiel. Etude de la stabilité. 23.
- Chase, C. E. and Herlin, Melvin A. Ultrasonic measurements in magnetically-cooled liquid helium. 449.
- Ultrasonic propagation in magnetically-cooled helium. 635.
- , David M. Inelastic scattering of nucleons by a dynamic nuclear wall. 244.
- and Wilets, Lawrence. Nuclear levels and transitions in Lu^{175} according to the unified model. 2376.
- Chase, M. N. s. Beer, A. C. 1090.
- Chastel, M. R. s. Bernet, A. 1120.
- , Raymond. Étude des photodésintégrations à l'aide des émulsions photographiques: Photodésintégration du carbone en trois particules α . II. 952.
- Étude des photodésintégrations à l'aide des émulsions photographiques: Réaction (γ , p) sur le cuivre. III. 2030.
- Chatterjee, B. Zu Scott, J. C. W.: Solar control of the E and F_1 layers at high latitudes. 525.
- and Das, P. P. Nature of the catalyst in the decomposition of carbon monoxide in presence of iron. 1321.
- s. Baral, S. S. 1286, 2571.
- , S. D. and Bhadra, T. C. Abnormal increase in the dielectric constant of an electret-forming material. 1241.
- and Bloom, J. N. Diurnal variation in cosmic-ray intensity at Ottawa. 2046.
- s. Rakshit, H. 709.
- Chatterji, A. C. und Mathur, J. P. Linear velocity of crystallisation in supercooled solutions. 2421.
- Chaudhri, R. M. Mercury safety valve for electrolysis of heavy water. 725.
- , Qayum, Abdul and Farooqi, Afzal. Anomalies in the cosmic-ray shower curves for lead. 1606.
- Chaudhuri, A. K. Scattering of electrons and contrast in the electron-micrographs of shadow-cast specimens. 2537.
- , M. L. Systematics of alpha ray spectra. 2031.
- Chavasse, P. et Lehmann, R. Conditions de vérification acoustique des haut-parleurs. 1733.
- Chédin, Jean. Essai d'une description quantitative des mélanges d'acide nitrique et d'eau: hydrates, équations d'équilibre, ionisation. 750.
- Chemla, M. s. Charpak, G. 954.
- Chen, Francis F., Leavitt, Christopher P. and Shapiro, Anatole M. Attenuation cross sections for 860-Mev protons. 1589.
- Ch'en, Shang-Yi, Bennett, Robert B. and Jefimenko, Oleg. Absorption bands of rubidium in the presence of foreign gases. 1818.
- Chen, Y.-N. Instationäre Randbedingung für die durch eine Querschnittsänderung gebildete Übergangszone in einer instationären, eindimensionalen Gasströmung. 1104.

- Cheng, L. S. Sargent diagram and comparative half-lives for allowed K-capture transitions of nuclides with $Z \leq 60$. 1793.
- , *Ridolfo, Virginia C., Pool, M. L. and Kundu, D. N.* Radioactive Tl^{204} and Bi^{207} . 580.
- , *P. Y. and Schachman, H. K.* Effect of pressure on sedimentation, and compressibility measurements in the ultracentrifuge. 1419.
- Chenot, M. Effets de charge d'espace dans une décharge en haute fréquence. I. u. II. 1236.
- Chernock, Warren P., *Mueller, Melvin H. Fish, Howard R. and Beck, Paul A.* Automatic X-ray reflection specimen holder for the quantitative determination of preferred orientation. 866.
- Chesnut, W. s. *Hafner, E. M.* 419.
- , *W. G., Hafner, E. M., and Harding, R.* Polarization of 210-Mev protons elastically scattered from carbon. 418.
- Chester, G. V. λ transition in liquid helium. 1829.
- , *P. F. and Dugdale, J. S.* Melting curves of deuterium and hydrogen. 28.
- Cheston, W. B. Proton polarization in (d, p) reactions. 603.
- Interaction of K-particles with nuclear matter. 2353.
- s. *Naugle, J. E.* 395.
- Chetham-Strode jr., A. s. *Hummel, J. P.* 965.
- Cheutin, A. s. *Maniey, J.* 552.
- s. *Thullier, Germaine* 552.
- Chevallier, R., *Bolfa, J. et Mathieu, S.* Titano-magnétites et ilménites ferromagnétiques. I. Etude optique, radiocristallographique, chimique. 645. II. Etude des propriétés magnétiques. 646.
- , *P. s. Gorodetzley, S.* 1793.
- Chevenard, *Pierre s. Portevin, Albert* 508.
- Chew, G. F., *Goldberger, M. L. and Low, F. E.* Boltzmann equation and the one-fluid hydromagnetic equations in the absence of particle collisions. 2289.
- Comparison of the cutoff meson theory with experiment. 901.
- Cheyhan, *Etienne s. Lebeau, Paul* 1963.
- Chiarotti, G., *Fumi, F. G. and Giulotto, L.* Experiments on the Z_2 band. 109.
- s. *Giulotto, L.* 2461.
- Chiba, R. s. *Takemoto, S.* 2367.
- , *Douglas, R. A., Broer, J. W., Herring, D. F. and Silverstein, E. A.* Electrostatic analysis of nuclear reaction energies. IV. 1353.
- Chiba, R. s. *Douglas, R. A.* 1353.
- s. *Herring, D. F.* 2388.
- Chidley, B. C. s. *Johns, M. W.* 1562.
- and *Katz, L.* Nitrogen cross section near threshold. 1543.
- Chih, *Chung Ying.* Neutron-proton scattering at 90 Mev. 604.
- Child, H. C. s. *Harris, G. T.* 336.
- Childers, H. M. and *Graves, J. D.* Bipartition angles for Compton scattering by free electrons. 1683.
- Childs, H. R. s. *Barnes, S. W.* 1602.
- Chin, J. s. *DeJuren, J.* 1538.
- , *J. H., Slepcevich, C. M. and Tribus, M.* Particle size distributions from angular variation of intensity of forward-scattered light at very small angles. 2085.
- — — Determination of particle size distributions in polydispersed systems by means of measurements of angular variation of intensity of forward-scattered light at very small angles. 2086.
- Chinaglia, B. and *Demichelis, F.* Photographic methods in γ -ray scintillation spectroscopy. 1121.
- Chinai, S. N., *Scherer, P. C. and Levi, D. W.* Molecular weight of polyvinyl acetate by light scattering and viscosity techniques. 2082.
- Chinowsky, W. and *Steinberger, J.* Absorption of negative pions in deuterium: parity of the pion. 47.
- — Reaction $\pi^- + d \rightarrow 2n + \pi^0$; parity of the neutral meson. 2002.
- s. *Blumenfeld, H.* 1132.
- Chiorboli, *Paolo e Mirone, Paolo.* Spettro Raman e ultrarosso dell' α -acetiltiofene. 1189.
- Chioti, P. Adaptation of a Geiger-counter X-ray diffractometer for high-temperature investigations. 791.
- Chiozzotto, A. s. *Ascenzi, A.* 1274.
- Chipman, D. L., *Warren, B. E. and Dienes, G. J.* X-ray measurements of radiation damage in black phosphorus. 777.
- Chippendale, R. A. s. *Saxe, R. F.* 315.
- Chirpaz, B. s. *Rodesch, J.* 875.
- Chisholm, D. A., *Hare, W. F. J. et Welsh, H. L.* Absorption infrarouge de l'hydrogène sous hautes pressions. 253.
- Chisholm, J. S. R. S-matrix for neutral PS-PV meson-nucleon interaction. 2270.

- Chisholm, J. S. R. and de Borde, A. H.* Fundamental formulae in Fowlerian statistical mechanics. 1513.
- Chisnell, R. F.* Normal motion of a shock wave through a non-uniform one-dimensional medium. 917.
- Chocholle, R.* Etude statistique des seuils auditifs monauraux et binauraux interprétation des résultats. 1903.
- Chomet, S. and Yarwood, J.* Diffuse reflexion of silver atoms at a metallic target at high temperature. 428.
- Chopra, K. P.* Radial adiabatic pulsations of an infinite cylinder in the presence of magnetic field parallel to its axis. II. 2111.
- and *Talwar, S. P.* Radial pulsations of an infinite cylinder with a magnetic field parallel to its axis. 2111.
- Choquard, Ph.* Traitement semi-classique des forces générales dans la représentation de Feynman. 1497.
- , *P. F. s. Beer, A. C.* 1090.
- *s. Willardson, R. K.* 471.
- Chou, C. N. and Schein, Marcel.* Cosmic-ray studies of penetrating showers and bremsstrahlung at 11200 feet by using plasticscintillation counters. 426.
- Chow, W. F. and Stern, A. P.* Automatic gain control of transistor amplifiers. 1041.
- Chraplyvy, Zeno V.* Reduction of relativistic two-particle wave equations to approximate forms. I. u. II. 538.
- Chrétien, Max* Radiative corrections to electron scattering. 984.
- Christ, C. L., Clark, Joan R. and Evans jr., H. T.* Crystal structure of $KVO_3 \cdot H_2O$. 795.
- *s. Kasper, John S.* 795.
- Christensen, H.* Surface channel detection method for semiconductors. 1219.
- Ultraviolet light induced surface channel and carrier lifetime effects in germanium. 2120.
- , *J. H. and Reed, R. B.* Design and analysis data. Density of aqueous solutions of phosphoric acid. 1938.
- , *R. L., Hamilton, D. R., Lemonick, A., Pipkin, F. M., Reynolds, J. B. and Stroke, H. H.* Spins and hyperfine structure separations of radioactive Au^{198} and Au^{199} . 1612.
- *s. Reynolds, J. B.* 1808.
- Christian, J. W.* Stripline or microwave printed circuits. 1056.
- Christian, R. s. Friedman, M. H.* 2040.
- , *Russell H. s. Walsh, John M.* 729.
- , *Schuyler M. s. Dresselhaus, G.* 1860.
- Christiansen, J. A.* Form und Inhalt der Diffusionsgleichungen. 33.
- Chemical kinetics and equilibrium. Law of integral powers in kinetics. 2325.
- *s. Manes, Milton* 2325.
- Christie, D. G.* Multiple spark camera for dynamic stress analysis. 2196.
- , *J., Leyburn, H. and Bird, J. F.* Proving the performance of circuit-breakers, with particular reference to those of large breaking capacity. 1054.
- , *Margaret I., Harrison, Anna J., Norrish, R. G. W. and Porter, G.* Recombination of atoms. II. Causes of variation in the observed rate constant for iodine atoms. 783.
- Christofilos, N. C. s. Blewett, J. P.* 1391.
- *s. Cottingham, J. G.* 1752.
- Christov, Chr.* Berechnung der elektrostatischen Aufbauenergie endlicher heteropolarer Kristalle. 797.
- Christy, R. F.* Rotational levels in W^{183} . 581.
- Alpha decay of spheroidal nuclei. 1160.
- and *Fowler, W. A.* Hole configurations in light nuclei. 48.
- *s. Sherr, R.* 67.
- Chrunev, M. s. Hines, M. E.* 2518.
- Chu, Chiao-Min and Churchill, Stuart W.* Numerical solution of problems in multiple scattering of electromagnetic radiation. 2086.
- , *E. L. Zu Gumowski;* Summation of slowly converging series. 2259.
- Chubb, T. A. s. Byram, E. T.* 1916.
- Chudoba, Vratislav.* Basic gravimetric measurements in Czechoslovakia during 1951. 1089.
- Chung, Kai Lai.* Theory of Markov chains. 895.
- Chupp, W. W. s. Chamberlain, O.* 2003.
- *s. Goldhaber, Gerson* 1336.
- *s. Hoff, E. L.* 1756.
- *Goldhaber, Gerson, Goldhaber, Sulamith and Webb, Francis H.* Interactions of negative K-particles at rest. 1522.
- —, *Johnson, William R. and Lannutti, Joseph E.* K-mesons mass from a K-hydrogen scattering event. 1336.
- — *Goldsack, Stephen J., Lannutti, Joseph E., Smith, Frances M. and Webb, Francis H.* Measurements on K-particles from the bevatron. 1756.

- Chupp, W. W. s. Lannutti, Joseph E.* 1997.
— *s. Webb, Francis H.* 2353.
- Church, E. L. and Monahan, J. E.* Internal conversion in the L and M subshells. 970.
— and *Sunyar, A. W.* Rotational states of excitation in U^{234} . 1360.
— and *Weneser, J.* Electric-monopole transitions in atomic nuclei. 1160.
—, *H. F.* Oriented polystyrene film capacitors. Cause of premature breakdown. 119.
- Churchill, Stuart W. s. Chu, Chiao-Min* 2086
Chynoweth, A. G. Pyroelectric effect in $BaTiO_3$. 673.
— and *McKay, K. G.* Photon emission from avalanche breakdown in silicon. 2131.
- Cialella, Carmen s. Miller, William.* 422.
Cini, M. and Fubini, S. Current density in Heisenberg representation. 188
— — Current density in quantum electrodynamics. 1926.
— — Properties of the fixed source meson theory. 2270.
- Cirkler, Frauke* Anisotropie der absoluten Thermospannung von Zinn zwischen 0° und $280^\circ C$. 1871.
- Claesson, Stig.* Theory of frontal analysis and displacement development. 458.
- le Claire A. D. et Rowe, A. H.* Diffusion de l'argon dans l'argent. 1195.
- Clamroth, R. s. Breiter, M.* 828.
- Clapp, Roger E.* Elementary particle structure. 364.
- Clarebrough, L. M., Hargreaves, M. E. and West, G. W.* Release of energy during annealing of deformed metals. 374.
- Clark, A. F. s. Kao, S. K.* 1167.
— *s. Grandey, Raymond A.* 982.
— *s. Mann, Leonard A.* 89.
—, *Carl, Vinegar, Ralph and Hardy, James D.* Goniometric spectrometer for the measurement of diffuse reflectance and transmittance of skin. 2198.
—, *C. D., Ditchburn, R. W. and Dyer, H. B.* Absorption spectra of natural and irradiated diamonds. 1408.
— *s. Piccioni, O.* 1518.
—, *G.* Experimental results on the arrival times and lateral distribution of air-shower particles. 248.
—, *George C. s. Scott, P. H.* 2086.
—, *Hadden.* Vertical discontinuities in the adsorption isotherm of krypton on graphitized carbon black. 2331.
- Clark, J. s. Wolff, G.* 912.
—, *J. F. and Kraakevik, J. H.* Charge on the earth. 889.
—, *Joan R. s. Christ, C. L.* 795.
—, *Joyce R. s. Burnham, Robert W.* 701.
—, *K. C. and Kanal, L.* Detection of mercury vapor by resonance ionization. 158.
—, *K. C. s. Berberet, J. A.* 1614.
—, *M. A. s. Graham, R. L.* 1154.
—, *R. E. D. and Farmer, F. T.* High-voltage machine. 1053.
—, *R. K., Brar, S. S. and Marinelli, L. D.* Ionization of air by beta rays from point sources. 1276.
- Clarke, C. s. Horner, F.* 1915.
—, *Edward N.* Germanium surface conductivity and the effects of water vapor. 2120.
—, *L. N.* Strain gauge bridge for creep tests. 14.
—, *R. L. s. Almqvist, E.* 1774.
—, *S. A.* Drum attachment to a travelling microscope for direct wavelength reading of spectral lines. 493.
—, *W. W. H. and Jacob, L.* Characteristics of a low voltage electron immersion objective. 2206.
- Class, C. M. and Hanna, S. S.* Lithium-7 nucleus. 2006.
— *s. Biedenharn, L. C.* 961.
— *s. Cook, C. F.* 62.
- Clastre, J. s. Motte, S.* 1467.
- Claudel, B. s. Freundlich, W.* 1813.
- Claus, B.* Kreiselkugelmühle. 724.
—, *Kurt,* Bestimmung der Poisson'schen Zahl durch direkte Messung von Querkontraktion und Längsdehnung. 1726.
- Clausnitzer, G., Fleischmann, R. und Schopper, H.* Erzeugung eines Wasserstoffatomstrahles mit gleichgerichteten Kernspins. 1391.
- Clavier, P. A. s. Adler, R.* 852.
- Clay, J., Jongen, H. F. and Dijker, A. J.* Increase of cosmic ray intensity in correlation with meteoric activity on Nov. 6-7, 1951. 2402.
— *Wandsdronk, C. and Dekker, Th. J.* Absorption of gamma radiation in thick layers of lead and the second maximum in the shower curve of cosmic radiation. 2044
— *s. Bruin, M.* 2042.
Cleek, Given W. s. Hubbard, Donald 2216.
Clegg, A. B. s. Wilkinson, D. H. 1159.

- Clegg, J. A., Almond, Mary and Stubbs, P. H. S. Pre-history of the earth's magnetic field. 2238.
- , P. L. Optical constants of thin metallic films deposited by evaporation. 270.
- Cleland, J. W. and Crawford jr., J. H. Radiation effects in gallium antimonide. 1651.
- — Fast-neutron bombardment of GaSb. 1860.
- — and Holmes, D. K. Effects of gamma radiation on germanium. 2132.
- s. Stevens, D. K. 1855.
- Clément, Alex et de Watteville, Henry Télémètres quantifiés 60 voies à fréquence vocale. 1936.
- Clement, J. D. s. Walton, R. B. 575.
- , J. R., Logan, J. K. and Gaffney, J. Liquid helium vapor pressure equation 1739.
- Clément, Michel s. Bouix, Maurice 1057.
- Clementel, E. Nucleon-nucleus potential at high energies. 418.
- and Villi, C. Non-linear interactions and nuclear saturation. 7.
- — Mechanical analyzer for proton-proton triplet phase shifts. 425.
- — Imaginary part of the nucleon-nucleus potential. 773.
- — Phaseshift analysis of proton-proton scattering experiments. I. General formulation. 774.
- , Poiani, G. and Villi, C. Phase shift analysis for negative pionproton scattering at 187 MeV. 425.
- and Villi, C. Pion-nucleon scattering. 425.
- Poiani, G. and Villi, C. Analytical method for obtaining phase shifts from experimental data on pion-proton scattering. 609.
- s. Beretta, L. 1377.
- Clendenin, William W. s. Richard, James A. 52.
- Cleveland, Forrest F. s. Weber, Alfons 433.
- Clifford, Joseph M. and Sawyer, R. B. Analysis of the Forbes bar method for measuring the thermal conductivity of metals. 1959.
- Clinchell, Betty Jo Engineering developments of rubber — July, 1952-June, 1953. 2441.
- Clogston, A. M. and Heffner, H. Focusing of an electron beam by periodic fields. 498.
- Cloizeaux, J. des Bandes interdites et bandes permises dans les semi-conducteurs impurs et les alliages désordonnés. 1216.
- Cloud, E. W. s. Aarset, B. 1591.
- , W. M. Isotope shift nonlinearities in the spectrum of cadmium. 1808.
- Clusius, K. Werden alle Metalle supra-leitend? 468.
- and Douglas, A. E. λ 4050 bands of the C_2^{13} molecule. 256.
- , Bühler, H. H., Hürzeler, H. und Schumacher, E. Trennrohr. XVI. Reindarstellung des Isotops ^{136}X . 902.
- and Huber, Max. Trennrohr. XIV. Trennschaukel. Thermodiffusions-Faktoren im System CO_2/H_2 . 33.
- — Trennrohr. XV. Umkehreffekt der Thermodiffusion in Gemischen der Neonisotope mit gewöhnlichem und deuteriertem Ammoniak. 220.
- und Losa, Celso Gutierrez. Tieftemperaturforschung. XIV. Atom- und Elektronenwärme des Rhodiums und Iridiums zwischen 10° und 273°K . 1109.
- Coan, J. M. Large-deflection theory for plates with small initial curvature loaded in edge compression. 1311.
- Coates, M. S. s. Armenteros, R. 1999.
- , Vincent J. and Hausdorff, Harry Interferometric method of measuring the spectral slit width of spectrometers. 1252.
- Cobble, J. W. s. Glass, R. A. 577.
- Coburn, Horace H. and Frankel, Shermau Angular correlation measurements in Hg^{197} . 1372.
- Cocchi, Giovanni. Campi potenziali attorno a schiere di cerchi. 1210.
- Cocova, C. s. Bracci, A. 2042.
- Cochardt, A. W. Magneto-mechanical torsion experiments. 124.
- Coche, A. Dépôt de RaE et de Bi-RaE sur Pd et alliage Au-Pd. 834.
- , Danon, J. et Guébély, M. El. Dépôts cathodiques en couches monoatomique de bismuth sur le platine et l'or. 2162.
- s. Haissinsky, M. 2145.
- s. Hée, A. 948.
- Étude des dépôts électrolytiques en solution très diluée (I). 2021.
- Chochet, R. Captation de particules neutres par un obstacle électrisé. 2504.
- Cochran, A. J. s. Ross, M. A. S. 412.
- , D. R. F. s. Brolley jr., J. E. 1539.

- Cochran, George W., Asadi, A. M. and Dougherty, T. F. Technique for electron microscopic observation of intact loose connective tissue and ground substance. 2223.
- , L. W. s. Kern, B. D. 1371.
- Cockett, A. H. Vapour circulating pumps. 905.
- Cockroft, H. S. and Pickin, J. R. X-band klystrons for high power C. W. operation. 1456.
- Codeau, C. s. Roy, R. R. 2029.
- Codegone, Cesare Modulo isotermico di elasticità dell'acqua. 2290.
- Relazione di similitudine nell'irraggiamento termico delle fiamme. 2328.
- Esperienze sull'irraggiamento termico delle fiamme. 2329.
- Codina, J. M. s. Amorós, J. L. 629.
- Coe, jr. J. R. s. Swindells, J. F. 2287.
- , R. F. s. Ramm, C. A. 1986.
- , E. s. Bonfiglioli, G. 462.
- Coester, F. Collective modes in nuclei. 366.
- Collective modes in nuclei. 1760.
- , Hamermesh, Morton and Tanaka, Katsumi. Limiting processes in the formal theory of scattering. 82.
- Coffin, Esther M. s. Tannenbaum, Eileen 439.
- Coghiano, Joseph A. s. Griffel, Maurice 266.
- Cohan, N. V. s. Altmann, S. L. 1609.
- Cohen, A. E. Z. s. Einhorn, H. D.
- Cohen, A. E. Z. s. Einhorn, H. D. 492.
- , Alvin J. Regularity of the F-center maxima in fused silica and α quartz. 629.
- s. Moeller, Therald 2413.
- , A. V. and French, A. P. Angular distribution of long-range alpha particles from the proton bombardment of ^{15}N . 2382.
- , B. L., Newman, E. and Handley, T. H. (p, pn) + (p, 2n) and (p, 2p) cross sections in medium weight elements. 1540.
- , Reynolds, H. L. and Zucker, A. Comparison of nitrogen- and proton-induced nuclear reactions. 52.
- , Blosser, H. G., Coombe, D. J., McCormick, G. H. and Newman, E. (p, γ), (p, α), (p, He_3), p, t) and (p, Be^7) cross sections. 1770.
- s. McCormick, G. H. 407.
- Gallium-64. 58.
- Angular distributions and yields of neutrons from (p, n) reactions. 574.
- Cohen, Angular distributions of neutrons from (p, n) reactions. 1373.
- (p, γ) cross sections. 1541.
- High-energy neutron threshold detectors. 1982.
- and Newman, Eugene. (p, pn) and (p, 2n) cross sections in medium weight elements. 1540.
- , David. Proton bremsstrahlung. 603.
- , Moyer, Burton J., Shaw, Harlan and Waddell, Charles. Emission of high-energy gamma line from C^{12} . 62.
- s. Shaw, Harlan 559.
- s. Waddell, Charles 62.
- , E. G. D., Offerhaus, M. J. van Leuween, J. M. J., Roos, B. W. and de Boer, J. Transport properties and the equation of state of gaseous para- and ortho-hydrogen and their mixtures below 40°K . 2336.
- , E. Howard. Electric strength of highly compressed gases. 1233.
- , E. Richard s. Weinberg, Isabella Goldin. 2347.
- , J. W. Use of implication in switching algebra. 1663.
- Certain delay problems for a full availability trunk group loaded by two traffic sources. 2501.
- and Harkema, P. Delay encountered in telegraph tape-relay switching. 2501.
- , L. Variation-perturbation method. I. 11. 1092.
- , M. s. Hillert, M. 2544.
- , Morrel s. Blount, Eugene 1652.
- , M. H. Nuclear quadrupole spectra in solids. 1423.
- and Barrett, C. S. Interaction of electrons with grain boundaries. 1851.
- , René Reproducible thermal neutron density standard. 1516.
- s. Thirion, Jacques 573.
- , Stanley Effect of the anomalous nucleon magnetic moment on the π^+ lifetime. 1342.
- , S. G. and Weinreb, A. Energy transfer from solvent to solute in liquid organic solutions under ultra-violet excitation. 2540.
- and Ofer, S. Spectrum of internal bremsstrahlung from Cr^{51} . 1792.
- s. Burde, J. 1582.
- , V. W. and Gilbert, D. A. Nuclear spin and hyperfine structure interaction of the 3.1-hr Cs^{134} isomer. 1347.

- Cohen s. Gilbert, D. A. 1807.
 —, Charlotte s. Duclaux, Jacques 1742.
 —, H. O. s. Kim, Y. B. 43.
 — s. Thompson, R. W. 43.
 — s. Willard, H. B. 2376.
 — and Fowler, J. L. Elastic scattering of neutrons from neon. 1596.
 — s. Kingston, J. D. 1540.
 —, Seymour B. Impedance measurement by means of a broadband circular-polarization coupler. 2509.
 Coldwell-Horsfall, Rosemary A. and ter Haar, D. Magnetoresistance effect in metals. 281.
 Cole, A. R. H. s. Blount, E. L. 855.
 —, A. W. and Smale, J. A. Transmission of pictures by radio. 1879.
 —, F. T. and Kerst, D. W. Small model FFAG betatron. II. Design calculations. 1328.
 — s. Terwilliger, K. M. 1328.
 Coleman, Bernard D. Time dependence of mechanical breakdown phenomena. 1416.
 —, Everett, S. s. Lawson, Hampden C. 1077.
 —, G. H. and Tewes, H. A. Nuclear reactions of copper with various high-energy particles. 1142.
 —, Paul D., Sirkis, Murray D. and Kaufman, Irving Crossed electron beam technique for measuring space-charge effects in beams. 993.
 — s. Sirkis, Murray D. 1248.
 Collerson, R. R. s. Ambrose, D. 747.
 Coles, B. R. and Bitler, W. R. Effect of aluminium on the saturation magnetic moments of ironcobalt alloys. 337.
 — Saturation moments and d-band configurations in iron and its alloys. 2465.
 — s. Taylor, J. C. 1871.
 Collet, A. Protection sélective par courants de capacité lors d'un défaut à la terre sur un réseau à point neutre isolé. 150.
 —, André s. Policard, Albert 2551.
 Collett, Charles T. Simplification of calculations in routine density and volumetric determinations. 197.
 Collet, Luc-Henry. Influence de la solvation des ions sur leur nombre de transport dans l'électrolyse. 1865.
 Osmose électrique. 2161.
 Variations de concentration aux électrodes dans l'électrolyse: inversion du phénomène d'Hittorf. 2161.
 Collet, Luc-Henry. Amélioration apportée à la théorie de l'inversion du phénomène d'Hittorf. 2484.
 — et Pommier, Mlle Marie-Christine. Existence d'une discontinuité de polarisation cathodique du platine dans l'électrolyse des solutions acides diluées. 2147.
 Collette, Gaston et Jacqué, Léon. Contribution au diagramme fer-carbone par l'étude des vitesses de réaction dans le système fer-méthane-hydrogène. 508.
 Colli, L. Ultraviolet photons in the decay of metastable argon atoms. 143.
 — s. Bracci, A. 2042.
 — and Facchini, Ugo. Secondary electron emission by photoelectric action and ion bombardement at the cathode in corona breakdown of argon. 143.
 —, C. H. s. Hird, B. 62.
 Collin, R. E. Wvegaude phase changer. Type with linear characteristic. 1247.
 Collinge, B., Merrison, A. W. and Eccles-hall, D. Fast multiple coincidence circuit. 1322.
 Collington, D. J., Dellis, A. N., Sanders, J. H. and Turberfield, K. C. Magnetic moment of the proton. 1529.
 Collins, F. C. Time lag in spontaneous nucleation due to non-steady state effects. 27.
 — s. Frisch, H. L. 116, 2450.
 —, George B. s. Ridgway, S. L. 937.
 —, J. B. and Hopkinson, R. G. Flicker discomfort in relation to the lighting of buildings. 322.
 —, R. J. Reynolds, F. W. and Stilwell, G. R. Electrical and optical properties of GaSb films. 475.
 — s. Spitzer, W. 2125.
 —, T. L. s. Giese, Clayton F. 1749.
 — s. Quisenberry, K. S. 37.
 — s. White, F. A. 401, 1349.
 —, Vincent P. s. Mead, Warren J. 345.
 Collinson, E., Dainton, F. S. et McNaughton, G. S. Rendements moléculaire et radicalaire dans les solutions aqueuses d'acrylamide irradiés avec des rayons X de 50 et 220 kV. 612.
 —, J. A. Isotope shift in HfI. 1399.
 Colmery jr., Benjamin H. s. Myers, William G. 2557.
 Colodny, Paul s. Kestigian, Michael 1633.
 Colombo, S., Rossi, A. and Scotti, A. Precision re-measurement of the ^{60}Ni gam-

ma-gamma directional correlation function. 599.

Colombo, S. Possibilité de définir la largeur de bande passante à partir de la distorsion subie par un transitoire. 2335.

Colonnetti, Gustavo. Valeur du coefficient de Poisson dans les phénomènes élastoplastiques. 374.

— Théorème de réciprocité. 2278.

Colson, I. D. s. Knott, R. D. 132.

Colthop, Norman B. s. Lancaster, John E. 1189.

Coltman, R. R. jr. s. Blewitt, T. H. 1850.

Columbe, Maynard J. Low-temperature chamber for electron diffraction studies. 1888.

Comar, C. L. s. Hansard, Sam L. 2551.

Combaud, Daniel s. Brefort, Jacques 643.

Combes, Lewis S., McCarthy, Kathryn A. and Ballard, Stanley S. Thermal expansion and thermal conductivity of some optical crystalline materials. 27.

Combettes, Aline s. Rabinovitch, Jacques 912.

Combrisson, J. s. Honig, A. 2132.

Condamine, J. s. Ricard, R. 169.

Conger, R. L. Magnetization reversal in thin films. 1018.

Conley, L. L. s. Davis jr., W. 12.

Conn, G. K. T. s. Beattie, J. R. 261, 316.

—, *W. M.* Mechanism of electrically exploded wires. 923.

— Metallic deposits and shock waves due to electrically exploded wires. 923.

— Mechanismus von elektrischen Drahtexplosionen (Metallniederschläge und Stoßwellen). 461.

Connally, R. E. s. Upson, U. L. 2343.

Connell, R. A. and Marcus, J. A. Hall effect and magnetoresistance of Bi single crystals at He temperatures. 1427.

Connelly jr., J. J., Harris, O. R. and Beams, J. W. Effect of a centrifugal field on the rate of diffusion in metals. 631.

Connick, Robert E. and Powell, Richard E. Entropy of aqueous oxy-anions. 24.

Connon, G. L. Carrier-leak in rectifier modulators of the shunt type. 153.

Connors, D. R., Miller, W. C. and Waldman, B. Energy determination of Au¹⁹⁸ conversion electrons. 971.

Conrad, A. G., Perrins, A. R. and Shank, R. R. Wide-range adjustable-speed drive. 1937.

—, *V.* Semidiurnal temperature wave and peculiarities of the diurnal variations of temperature on mountain summits. 2252.

Conroy, Margaret F. Plastic-rigid analysis of a special class of problems involving beams subject to dynamic transverse loading. 199.

Contini, Camillo. Calcolo degli elementi del campo magnetico delle masse di forma qualunque. 1237.

Contopoulos, George. Isophotes of ellipsoidal nebulae. 2235.

Conway, B. E. Effects of salts on the viscosity of polyelectrolyte solutions. 2433.

—, *H. D.* Axially symmetrical plates with linearly varying thickness. 1311.

—, *John G. and McLaughlin, Ralph D.* Nuclear spin of Np²³⁹. 401.

— — Isotope shift and wavelengths of the curium spectrum. 1612.

Conwell, E. M. Impurity band conduction in termanium and silicon. 1032.

Conzett, Homer E. Inelastic scattering of protons from Li⁷, C¹², Mg²⁴ and Si²⁸. 1574.

Cook, A. H. Comparison of the acceleration due to gravity at the National Physical Laboratory, Teddington, the Bureau International des Poids et Mesures, Sèvres, the Physikalisch-Technische Bundesanstalt, Brunswick, and the Geodetic Institute, Potsdam. 1282.

— Possibility of comparing line standards of length photographically. 1938.

— Expansion of mercury and fused silica between 0 and 300°C. 2313.

Coogan, C. K. s. Thompson, N. 1503.

Cook, C. F., Class, C. M. and Eisinger, J. T. Electric excitation of Au¹⁹⁷. 62.

— *s. Marion, J. B.* 1144.

—, *C. J.* Zipper scattering chamber. 556.

—, *C. S. s. Chang, C. H.* 87.

— and *Kreger, W. E.* Gamma radiation following the decay of Pr¹⁴⁴. 66.

— *s. Kreger, W. E.* 80, 1576.

— *s. Tomnovec, F. M.* 1366.

—, *D. and Rowlinson, J. S.* Deviations from the principle of corresponding states. 219.

- Cook, G. B. and Seligman, H. Chemical treatment of isotopes produced in a nuclear reactor. 2348.
- , J. R. Elastic scattering of gamma rays. 776.
- and Mahmoud, K. A. Luminescence characteristics of some scintillating crystals. 230.
- , K. A. s. Plessner, K. W. 299.
- , Marlene I. s. Morris, Kelso B. 1304.
- , M. J., Morgan, K. Z. and Barkow, A. G. Validity of the current practice of using single exposure data to calculate maximum permissible concentrations in air and water for continuous exposure to radioisotopes. 1695.
- , R. H. and Keynes, R. D. Timing device. 904.
- , W. S. s. Crysedale, J. H. 677.
- Cooke, A. H. and Duffus, H. J. Paramagnetic resonance spectra of some rare-earth double nitrates. 1424.
- and Park, J. G. Nuclear spins and magnetic moments of ^{161}Dy , ^{163}Dy , ^{171}Yb and ^{173}Yb . 1533.
- , Meyer, H. and Wolf, W. P. Method of correlating the magnetic temperature scales of paramagnetic salts below 1°K . 817.
- , Whitley, and Wolf, W. P. Demagnetization experiments on cerium ethyl sulphate. 279.
- s. Benzie, R. J. 817.
- Cooke-Yarborough, E. H. and Whyard, R. E. Automatic counting of red blood cells. 2221.
- Cool, D. s. Piccioni, O. 1518.
- , R. L., Madansky, L. and Piccioni, O. Total cross section of pions at 1.5 Bev. 423.
- Coombe, D. J. s. Cohen, B. L. 1770.
- Coomes, E. A. s. Baldwin, G. J. 688.
- s. Davey, J. E. 1446.
- Cooper, B. F. C. Bridge for measuring audio-frequency transistor parameters. 2139.
- , B. J. s. Blund, W. R. 196.
- , C. B. s. Enck, F. D. 729.
- , C. Dewey. Near ultraviolet absorption spectrum of para-difluorobenzene vapor. 627.
- , Franklin S., Liberman, Alvin M. and Borst, John M. Interconversion of audible and visible patterns as a basis for research in the perception of speech. 2224.
- Cooper, H. s. Schwed, P. 1872.
- , H. G., Koehler, J. S. and Marx, J. W. Irradiation effects in Cu, Ag and Au near 10°K . 610.
- , J. N. s. Green, D. W. 579, 977.
- s. Milani, S. 1371.
- s. Smith jr., Robert T. 1749.
- , L. N. and Tobocman, W. Deuteron stripping and the problem of nuclear radii. 603.
- , R. s. Calderwood, J. H. 2497.
- , R. I. B. s. Browne, B. C. 1282.
- Coor, T. Hill, D. A. Hornyak, W. F. Smith, L. W. and Snow, G. Nuclear cross sections for 1,4-Bev neutrons. 1381.
- Cope, A. D. and Rose, A. X-ray noise observation using a photoconductive pickup tube. 1057.
- , D. F. s. Hatch, A. J. 1919.
- Copeland, Charles S. s. Benson, Sidney W. 28.
- , Paul L. s. Schwartz, Manuel 484.
- Čopič, Milan Viscosité intrinsèque en fonction du gradient de vitesse. II. 1838.
- Corak, W. S. and Satterthwaite, C. B. Atomic heat of tin in the normal and superconducting states. 1023.
- Goodman, B. B., Satterthwaite, C. B. and Wexler, A. Exponential temperature dependence of the electronic specific heat of superconducting vanadium. 127.
- s. Satterthwaite, C. B. 1023.
- , Garfunkel, M. P. Satterthwaite, C. B. and Wexler, Aaron Atomic heats of copper, silver and gold from 1°K to 5°K . 922.
- di Corato, M., Locatelli, B., Mignone, G. and Tomasini, G. Nuclear interaction of K-particles at rest. 2367.
- s. Davies, J. H. 763.
- Corbé, G. s. Langevin, M. 226.
- Corbett, Brian D. and Honour, A. J. Design of directional counters for clinical use. 1905.
- , J. W. s. Schwartz, R. B. 1770, 2367.
- Cordier, G. le s. Piganiol, P. 1416.
- Corey, Robert B., Donohue, Jerry, Trueblood, Kenneth N. and Palmer, Kenneth J. X-ray investigation of air-dried lysozyme chloride crystals: three-dimensional Patterson function. 2067.

- Corinaldesi, E.* Quantum field theory and the two-body problem of general relativity. 2.
- Two-body problem in the theory of the quantized gravitational field. 1713.
- Coriou, H., Dirian, J. et Huré, J.* Electrode de référence utilisable dans des bains fondus de fluorures. 295.
- *Guéron, J., Hering, H., Lévêque, P.* Électrolyse sur cathode de mercure de mercure renouvelée; applications au dosage de traces d'impuretés dans les sels d'uranium et de calcium. 2486.
- Cork, Bruce and Hartsough, Walter.* Elastic scattering of 9.7-Mev protons by He^4 . 416.
- , — Elastic scattering of 9.7-Mev protons by alpha particles. 601.
- and *Wenzel, W. A.* Elastic proton-proton scattering in the Bev range. 2036.
- s. *Brabant, John M.* 1529.
- , *J. M. Brice, M. K. and Schmid, L. C.* Energies of the radiations from Ce^{144} and Pr^{141} . 61.
- , — Energies of the radiations from Co^{57} and Co^{58} . 1556.
- , —, and *Helmer, R. G.* Radioactive decay of ruthenium-97. 1566.
- , —, — Gamma energies in Tc^{97} following K capture in Ru^{97} . 1162.
- , *LeBlanc, J. M., Nester, W. H. and Brice, M. K.* Nuclear levels in Cs^{131} . 60.
- , *Brice, M. K., Martin, D. W., Schmid, L. C. and Helmer, R. G.* Nuclear levels in Tm^{169} , Lu^{175} and Lu^{177} as derived from the radioactive isotopes of Yb. 964.
- , —, — Radiations from the active isotopes of ytterbium. 2377.
- s. *LeBlanc, J. M.* 585, 956.
- s. *Martin, D. W.* 967, 1158.
- Corliss, L. M.* s. *Brockhouse, B. N.* 1382.
- Cormack, A. M.* Resonance scattering of gamma rays by nuclei. 91.
- Neutrinos from the sun. 564.
- Internal Rayleigh scattering. 609.
- , *D. V.* Beta-ray sensitivity of autoradiographic stripping film. 1068.
- s. *Bernier, J. P.* 619.
- s. *Johns, H. E.* 1173, 2397.
- Corman, A. and Bedinger, J. F.* Rocket-borne photometer measures sky light. 1703.
- Cornelius, R.* s. *Sargent, C. P.* 1344.
- Cornish, F. H. J. and MacDonald, D. K. C.* Influence of deviations from the Debye spectrum on the electrical conductivity of metals. 1849.
- Cornsweet, T. N.* s. *Johnson, E. P.* 340.
- Cornu, Aimé.* Analyse spectrochimique quantitative par le spectrographe sans fentes. 2542.
- Coroniti, S. C.* s. *Stergis, C. G.* 711.
- Correns, Carl W.* Beständigkeit von Kristallkeimen in überhitzten Schmelzen und untersättigten Lösungen. 2316.
- Corrin, M. L.* Low pressure adsorption of heptane on ferric oxide. 1967.
- Low pressure validity of the bet equation. 1970.
- Corrsin, S. Kistler, A. L. and O'Brien, V.* Measurements of velocity and temperature fluctuations behind a hot grid. 914.
- s. *Ruetenik, J. R.* 17.
- , Measure of the area of a homogeneous random surface in space. 1510.
- Corruccini, Robert Z. and Shenker, Henry.* Modified 1913 reference tables for ironconstantan thermocouples. 2499.
- Corson, D. R.* s. *Davis, H. L.* 1523.
- *McDonald, William S. and Peterson, Vincent Z.* Neutral meson photoproduction at forward meson angles. 1525.
- s. *McDonald, W. S.* 1757.
- della Corte M., Fazzini, T. F. and Sona, A. M.* Anelastic scattering of π -mesons on carbon. 985.
- Cortini, G. s. Amaldi, E.* 2352.
- s. *Castagnoli, C.* 387, 392.
- Corvese, Louis s. Griffing, Virginia* 1102.
- Coryell, Charles D. s. Richter, Harold G.* 1775.
- s. *Wiles, Donald R.* 407.
- Cosgriff, R. L.* Open-loop frequency response method. 544.
- Cosslett, V. E.* Electron microscopy in Germany. 2206.
- Cossmann, Gerda s. Jenckel, Ernst* 2447.
- Costa, G. and Dallaporta, N.* $\text{K}\mu_3$ - and $\text{K}\beta_3$ -decay schemes. 763.
- and *Taffara, L.* S_{PM} and parity of the τ -meson. 2000.
- , *N. L. s. Marquez, L.* 1389.
- Cote, E. and Bollinger, L. M.* Γ_n^0/\bar{D} for slow neutron resonances. 1380.
- Coté, R. E. s. Bollinger, L. M.* 957, 1123.

- Coté s. *Le Blanc, J. M.* 1383.
- Cott, Harold P. van s. *Morris, A.* 1884.
- Cottin, M. et Lefort, M. Mécanisme chimique primaire de radiolyse de l'eau. 612.
- — Etalonnage absolu du dosimètre au sulfate ferreux. Rayons X mous de 10 et 8 KeV. 1904.
- Cottingham, J. G., Christofilos, N. C., Plotkin, M., Raka, E. C. and Rhéaume, R. H. Electron analog. Electrical system. 1752.
- s. *Spiro, J.* 1752.
- Cottingham, R. L. s. *Swindells, J. F.* 202.
- Cottini, C, Gatti, E, Gianelli, G. and Rozzi, G. Minimum noise pre-amplifier for fast ionization chambers. 1972.
- Cottini, C. s. *Barabaschi, S.* 755.
- Cotton, E. S. Diurnal variations in natural atmospheric radioactivity. 1915.
- , K. J. s. *Lambert, J. D.* 16.
- Cottrell, A. H. and Stokes, R. J. Effects of temperature on the plastic properties of aluminium crystals. 732.
- s. *Lomer, W. M.* 260.
- s. *Maddin, R.* 169.
- , T. L. and Ream, N. Transition probability in molecular encounters. I. Evaluation of perturbation integrals. 788.
- Couchet, Georges s. *Beaussier, Jacques* 39.
- Couchman, James and Curtis, C. D. Multichannel pulse-height analyzer. 553.
- Couling, S. R. L. and Smoluchowski, R. Anisotropy of diffusion in grain boundaries. 2426.
- Coulmy, Geneviève, Méthode de calcul des intégrales de Lommel généralisées. 713.
- Coulon, R. Aménagement d'un spectromètre infrarouge Perkin-Elmer pour utilisation de cuves longues de faible ouverture. 1461.
- , Galatry, Louis, Robin, Jean et Vodar, Boris. Spectre infrarouge de H_2 , induit par le champ intermoléculaire dans les mélanges H_2 -ClH et dans H_2 pur comprimés. 2057.
- Coulson, C. A. Free-electron network model for metals. II. 1021.
- Coumou, D. J. s. *Arلمان, E. J.* 2432.
- Courant, E. D., Kassner, R. R., Raka, E. C., Lloyd Smith, and Spiro, J. Electron analog. Performance and interpretation. II. 1752.
- s. *Green, G. K.* 1751.
- Courant, E. D. s. *Raka, E. C.* 1752.
- s. *Spiro, J.* 1752.
- , H. Associated photons in K-particle decays observed with a multiplate cloud chamber. 1135.
- s. *Bridge, H. S.* 44.
- s. *DeStaebler jr., H. C.* 44.
- Courshee, R. J. Testing a counting machine. 2095.
- Court, G. W. G. Microwave interferometer for speed measurements. 307.
- Determination of the reflection coefficient of the sea, for radarcoverage calculation, by an optical analogy method. 682.
- Ionospheric wind determination from spaced radio receiver fading records. 2573.
- Courtès, Georges, Turbulence dans l'espace interstellaire en émission. 1083.
- s. *Blamont, Jacques-Emile* 1284.
- le Couteur, K. J. Extraction of the beam from the Liverpool synchrocyclotron. I. Theoretical. 558.
- Perturbations in the magnetic deflector for synchro-cyclotrons. 1986.
- Couture, L. s. *Nikitine, S.* 1223, 2072.
- Couture-Mathieu, Mme Lucienne et Mathieu, Jean-Paul, Spectre de diffusion des cristaux piézoélectriques. IV. Blende. 2072.
- Covington, A. E. Solar noise at 10 cm. 515.
- Cowan, C. L., Harrison, F. B., Langer, L. M. and Reines, F. Test of neutrino-antineutrino identity. 2355.
- Cowan, jr. C. L. s. *Harrison, F. B.* 398.
- s. *Reines, F.* 564.
- , Frederick P. and Weiss, Jerome. Analysis of urine for gross radioactivity. 2230.
- , George R., Vincent, Earl and Crawford jr., Bryce, Application of a fast-scanning infrared spectrometer to gas-phase kinetic studies. 1512.
- Coward, Nathan A. and Noyes jr., W. Albert Fluorescence of biacetyl vapor at 4358 Å. 1687.
- Cowling, T. G. Magneto-hydrodynamic oscillations of a rotating fluid globe. 818.
- Cownie, A. and Palmer, L. S. Effect of moisture on the electrical properties of soil. 712.
- Cowper, G. Aerial prospecting with scintillation counters. 532.

- Cox, B. C. s. McDowell, C. A. 1186.
- , D. R. Use of complex probabilities in the theory of stochastic processes. 1292.
- , Everett, F. Proposed change in scaling laws for explosive phenomena. 1732.
- , E. G., Cruickshank, D. W. J. and Smith, J. A. S. Crystal structure of benzene: systematic error in precision X-ray crystal analysis. 106.
- , J. A. M. and Tolhoek, H. A. Directional correlation of two successive radiations emitted by oriented nuclei. 236.
- , — Angular correlation of two gamma quanta emitted by aligned radioactive nuclei. 2033.
- s. Tolhoek, H. A. 2033.
- , J. T. s. Livingston, Ralph. 436.
- s. Mzushima, Masataka. 1778.
- , R. E. Traffic flow in an exponential delay system with priority categories. 675.
- , R. T. Brownian motion in the theory of irreversible processes. 384.
- , S. A. and Williamson, R. M. Angular distributions and angular correlations in Be^9 (d, p) Be^{10} and B^{10} (d, p) B^{11} . 239.
- Cragg, B. G. Electronic magnetometer. 274.
- Magnetic coupling for a kinematic slide. 542.
- , L. H. and Bigelow, C. C. Viscosity slope constant k'-ternary systems: polymer-polymer-solvent. 1630.
- , Sones, R. H. and Dumitru, T. E. Choice of solvent for the viscometric determination of molecular weights of high polymers. 267.
- Craggs, J. D. and McDowell, C. A. Ionization and dissociation of complex molecules by electron impact. 1813.
- and Marriott, J. Gaseous electrical insulation. 1054.
- s. Cundall, C. M. 480.
- s. Marriott, J. 1179.
- Craig, David, Davidson, W. L. and Juve, A. E. Tetramethylthiuram disulfide vulcanization of extracted rubber. V. Low molecular products and the mechanism of zinc oxide activation. 456.
- , Juve, A. E. and Davidson, W. L. Tetramethylthiuram disulfide vulcanization of extracted rubber. III. Short-path distillation of TMTD and its reaction products from rubber. 456.
- Craig, David, Davidsohn, W. L. and Juve, A. E. IV. Behavior of rubber as an acid. 456.
- , Davidson, W. L., Juve, A. E. and Geib, I. G. Tetramethylthiuram disulfide vulcanisation of extracted rubber. II. Structure of radioactive tetramethylthiuram disulfide. 456.
- , D. P. and Lyons, L. E. Assignment of naphthalene bands at 3200—2900 Å. 438.
- , D. S., Cross, W. G. and Jarvis, R. G. Gamma rays from (p, γ) reactions in B^{11} and Mg^{24} . 65.
- , H. and Dietrich, C. F. Development of a new method for the absolute determination of β -ray energies. 1981.
- Crain, C. M. Airborne microwave refractometer measurements. 2505.
- Cramer, Franz. Thermodynamische Eigenschaften von Gasen bis zu höchsten Drücken. 2308.
- Cramwickel, A. Physical and electrical properties of the transistor. 2480.
- Cranberg, L. and Levin, J. S. Inelastic scattering of neutrons from iron by time-of-flight. 1567.
- Crandall, S. H. Iterative procedures related to relaxation methods for eigenvalue problems. 361.
- , W. E. s. Birnbaum, W. 1769.
- s. Schechter, Larry. 557.
- Crane, H. R. s. Louisell, W. H. 560.
- , L. s. Davies, J. H. 763.
- , W. W. T., Higgins, G. H. and Thompson, S. G. Average number of neutrons emitted during the spontaneous fission of Cf^{252} . 56.
- Cranham, P. V. Automatic controls. 907.
- Crasemann, Bernd and Manley, D. L. Radioactivity of Co^{57} . 1546.
- Crathorn, A. R. Counting of low-level activities. 223.
- Craven, G. and Lewin, L. Design of microwave filters with quarter-wave couplings. 1879.
- Crawford jr., Bryce L., Lancaster, John E. and Inskeep, Richard G. Potential function of ethylene. 431.
- s. Cowan, George R. 1512.
- s. Eberhardt, W. H. 1615.
- s. Mills, I. M. 1855, 1883.
- , jr. F. S. and Stevenson, M. L. Reaction $p + p \rightarrow \pi + d$ with polarized protons. 46.

- Crawford jr., Bryce, L.* Reaction $p + p^+ \rightarrow \pi^+ + d$. 942.
- *s. Alvarez, Luis W.* 1521, 1604.
- , *G. J. B.* Spin echoes with four pulses. 1423.
- , *G. W. s. Kendrick jr., N. S.* 629.
- *s. Miller, J. E.* 629.
- , *Harry D.* Two new lines in the microwave spectrum of heavy water. 435.
- , *jr. J. H. and Stevens, D. K.* Magnetic susceptibility of indium antimonide. 1035.
- *s. Cleland, J. W.* 1651, 1860, 2132.
- *s. Stevens, D. K.* 1855, 2129.
- , *K. D. E.* Generator for very small direct currents. 644.
- Crawshaw, J. K. and Elliot, H.* Search for a sidereal variation of the cosmic ray intensity at high energies. 1178.
- Craya, A.* Evaluation of the critical regime in stratified flow. 2578.
- Creely, Joseph J. s. Segal, Leon.* 925.
- Creer, K. M., Irving, E. and Runcorn, S. K.* Direction of the geomagnetic field in remote epochs in Great Britain. 2238.
- Cremer, E. und Bachmann, L.* Übermikroskopischer Beitrag zur Kinetik der Phasenbildung. 29.
- , *L.* Algebraische Kriterien der Stabilität linearer Regelungssysteme. I. 2277.
- Cresti, M. s. Deutschmann, M.* 1335, 1999.
- Crèvecoeur, E. s. Capron, P. C.* 57.
- Creve, A. V. and Gregory, J. W. G.* Extraction of the beam from the Liverpool synchrocyclotron. II. Experimental work. 558.
- *s. Alston, Margaret H.* 386.
- Crick, F. H. C.* Height of the vector rods in the three-dimensional Patterson of haemoglobin. 872.
- Crist, P. W.* Unit for frequency. 1721.
- Cristiani, G. s. Giulotto, L.* 2461.
- Crutchfield, C. L. and Lowen, Robert.* Model for the potential between nucleon and nucleus. 1533.
- Crotto, U., Bezzi, S. and Bua, E.* Crystal structure of p-dichlorobenzene. 2067.
- Croce, P.* Possibilités d'amélioration du contraste des images par filtrage des fréquences spatiales. 690.
- *et Marquet, Madeleine.* Détermination optique du bruit de fond photographique. 323.
- *s. Maréchal, André.* 2524.
- Crocker, A. M. s. Bedford, R. E.* 1351.
- Crocker, V. S.* Thermal neutron activation cross-sections of U^{238} and Th^{232} . 1352.
- Croft, A. J., Olsen-Baer, J. L. and Powell, R. W.* Anisotropy in the superconductive properties of gallium. 284.
- le Croisette, D. H. s. Yarwood, J.* 305.
- Crombie, D. D.* Doppler spectrum of sea echo at 13.56 mc./s. 302.
- Crompton, Charles E. and Woodruff, Nathan, H.* Chemical syntheses of radioisotopelabeled compounds. I. 955.
- , *R. W., Dutton, J. and Haydon, S. C.* Precision measurements of ionization coefficients in uniform static fields. 1231.
- — — Growth of pre-breakdown ionization currents in hydrogen. 2490.
- *s. Huxley, L. G. H.* 668.
- Crooker, A. M. s. Bedford, R. E.* 620.
- *s. Nodwell, R. A.* 620.
- Crosland-Taylor, P. J.* Counting small particles suspended in a fluid through a tube. 2220.
- Cross, L. E.* Thermodynamic treatment of ferroelectricity and antiferroelectricity in pseudo-cubic dielectrics. 2103.
- , *W. G. and Jarvis, R. G.* Elastic scattering of 14.6-Mev neutrons. 1595.
- *s. Craig, D. S.* 65.
- Crosswhite, H. M. and Fastie, W. G.* Spectrometer slit mechanism. 1678.
- , *Dieke, G. H. and Legagneur, C. Salmon.* Hollow iron cathode discharge as source for wavelength and intensity standards. 1460.
- Crouch, M. F. s. Foreman, C. E.* 419.
- Crowe, K. M., Friedman, R. M. and Hagerman, D. C.* π^+ photoproduction ratio of deuterium to hydrogen. 1757.
- , *and Motz, H.* π^- counting by delayed coincidence. 943.
- , — — π^+ photoproduction in carbon. 1526.
- *Helm, R. H. and Tautfest, G. W.* Measurement of the $\mu^+ - \beta^+$ decay spectrum. 1526.
- *s. Friedman, R. M.* 1526, 1757.
- *s. Hagerman, Donald C.* 1599.
- *s. Helm, R. H.* 1524.
- *s. Motz, Hans.* 943, 1526.
- *and Phillips, Robert H.* Precision measurement of the negative pion mass from its radiative absorption in hydrogen. 396.

- Crowe, M. O'L. and Walker, A.* Absorption and fluorescence spectroscopy applied in studies of the laboratory products of a health institute, isolated and purified by chromatography and electrophoresis. A demonstration. 171.
- , *R. W. and Devins, J. C.* Sparking potential and molecular structure of hydrocarbon gases. 1045.
- , *Bragg, J. K. and Thomas, Virginia G.* Space charge formation and the Townsend mechanism of spark breakdown in gases. 144.
- , *Sharbaugh, A. H. and Bragg, J. K.* Electric strength and molecular structure of saturated hydrocarbon liquids. 1661.
- , *s. Bragg, J. K.* 147.
- Cruickshank, A. J. O.* Time series and the use of jump functions in approximate analysis. 714.
- , *D. W. J. s. Ahmed, F. R.* 1006.
- , *s. Cox, E. G.* 106.
- , *F. D.* Méthodes algébriques au calcul des systèmes optiques. 2530.
- Crussard, J., Kaplon, M., F. Klarmann, J. and Noon, J. H.* Observation of a new decay mode of a heavy meson. 394.
- , *Fouché, V., Hennessy, J., Kayas, G., Leprince-Ringuet, L. Morellet, D. et Renard, F.* K-mesons in emulsions exposed to a 6.2 GeV proton beam. 2000.
- , *s. Kaplon, M. F.* 44.
- , *s. Noon, J. H.* 56.
- , *s. Walker, W. D.* 1385.
- , *Leprince, Ringuet Louis, Morellet, Daniel, Orkin-Lecourtois, Mlle Agnès et Trembley, Jacques.* Mésons x lents émis dans des étoiles cosmiques. 393.
- Crysdale, J. H., Day, J. W. B. and Cook W. S.* Experimental investigation of the diffraction of electromagnetic waves by a dominating ridge. 677.
- Csanady, G. T.* Dispersal of dust particles from elevated sources. 2551.
- Cubero, Mercedes s. Bru, L.* 628.
- Cuwilleron, Jean et Charret, Michel.* Ammoniac liquide. I. Conductibilité spécifique de l'ammoniac. 1865.
- II. Produit ionique de l'ammoniac. 1865.
- III. Etude des complexes: tétrachlorure de titane-ammoniac. 1813.
- Cüer, P. et Jung, J. J.* Niveaux excités de Li^7 et Be^8 mis en évidence dans la désintégration de Be^9 par les deutrons de faibles énergies. 771.
- Cüer, P. et Jung, J. J.* Etude expérimentale et mécanisme de la réaction $\text{B}^{10}(\text{d}, \alpha) 2\alpha$. 74.
- , *s. Barkas, Walter H.* 1748.
- Cuevas, J. s. Krasner, Sol.* 1395.
- Cullen, A. L.* Absolute power measurement at microwave frequencies. 1637.
- , Absolute measurement of microwave power. 1637.
- , Absolute measurement of microwave power by radiation pressure. 2178.
- , and *Parr, J. C.* Perturbation method for measuring microwave fields in free space. 642.
- Culler, G. s. Fernbach, S.* 979.
- , *s. Sherman, N.* 979.
- , *Vaughn and Wanick, R. W.* Optical model for neutrons between 60 and 110 Mev. 1380.
- , —, Total cross sections for high-energy neutrons. 1595.
- Cumming, C. v.* infrared band of ammonia. 2058.
- Cummings, G. A. McD. and McLaughlin, E.* Vapour pressures of some unsaturated hydrocarbons containing six carbon atoms. 2319.
- Cumming, J. s. Baker, E.* 954.
- , *James B.* New zinc isotope, Zn^{61} . 580.
- Cundall, C. M. and Craggs, J. D.* Electrode vapour jets on spark discharges. 480.
- Cunliffe, A. and Gould, R. N.* Inverse perturbation. 1925.
- Cunningham, B. V. s. Koch, C. W.* 212.
- , *W. J.* Nonlinear oscillators with constant time delay. 1056.
- , Limitation of the reversion method. 1921.
- Cuny, Bernard.* Correction des aberrations introduites par une lame inclinée en lumière convergente. 688.
- Curchod, Jean.* Complexes métalliques des amino-acides. I. α -alanine. Méthode des variations continues. 1812.
- Curie, D.* Relations entre la phosphorescence et la physique des semi-conducteurs. 1262.
- , *s. Curie, G.* 168.
- , *s. Curie, Maurice.* 329, 330.
- , *G. et Curie, D.* Détermination des profondeurs des pièges à électrons par thermoluminescence. 168.
- , *Maurice et Curie, Daniel.* Questions actuelles en luminescence cristalline. I. 329. II. Déplacement des électrons

- et des trous dans le réseau cristallin. III. IV. 330.
- Curien, H. Agitation thermique des atomes dans les cristaux et la diffusion des rayons X: le cas du sodium. 2197.
- Curl, R. F., jr. s. Pitzer, Kenneth S. 1319.
- Curle, N. Influence of solid boundaries upon aerodynamic sound. 207.
- Unsteady two-dimensional flows with free boundaries. I. General theory. 1505. II. Incompressible inviscid jet. 1506.
- Curr, R. M. s. Damodaran, K. K. 1601.
- Curran, S. C., Dixon, D. and Wilson, H. W., Natural radioactivity of rubidium. 2009.
- s. Moljk, A. 1124.
- Currie, B. W. and Weaver, J. T. Vertical extent of auroral arcs and bands. 2242.
- s. Namara, A. G. 522.
- Curtis, C. D. s. Couchman, James. 553.
- , C. W., Enrich, R. J. and Mack, John. Chronointerferometer for measuring gas density during transient flows. 16.
- , Lawrence R. s. Cassen, Benedict. 2227.
- , M. L. s. Baker, W. H. 224.
- , s. Hagee, G. R. 570.
- Curtiss, C. F. Quantum mechanics of collisions between diatomic molecules. 1404.
- Separation of the rotational coordinates from the N-particle Schroedinger equation. II. 1404.
- , H. E. s. Bennett, W. R. 2501.
- Cusack, N. Scattering of positrons. 2039.
- Cusano, Joseph V. s. Storey, Clifford F. 2226.
- Cusano, D. A. Field enhanced solid-state luminescence. 1071.
- Radiation-controlled electroluminescence and light amplification in phosphor films. 1262.
- s. Studer, F. J. 1687.
- Custers, J. F. H. Semiconductivity of a type IIb diamond. 1218.
- Cutillas, M. J. s. Ross, Sydney. 2093.
- Cutler, C. C. Regenerative pulse generator. 1878.
- and Hines, M. E. Thermal velocity effects in electron guns. 851.
- and Saloom, J. A. Pin-hole camera investigation of electron beams. 851.
- , M. s. Bath, H. M. 1430.
- , W. G., Schiessler, R. W. and Webb, W. Compressions of several high molecular weight hydrocarbons. 375.
- Cutting, C. L., Jason, A. C. and Wood, J. L. Capacitance-resistance hygrometer. 553, 754.
- Cwilong, B. M. Abnormal freezing nuclei in the atmosphere. 1487.
- Czekalla, J. Berechnung von Dipolmomenten aus Messungen an verdünnten Lösungen. 1444.
- Czemy 60 Jahre. 1290.
- Czyż, W. Theory of the ${}^7\text{Li}$ (γ , ${}^3\text{H}$) ${}^4\text{He}$ reaction. 405.
- Czyzak, S. J., Reynolds, D. C., Allen, R. C. and Reynolds, C. C. Properties of single cubic zinc sulfide crystals. 668.

D

- Daams, H. Apparent dead time of a Geiger counter, measuring an intensity of radiation which varies periodically. 1975.
- Daasch, L. W. Infrared and Raman spectra of the trimer and tetramer of phosphonitride dichloride. 1620.
- Dabbs, J. W. T. and Roberts, L. D. Polarization of Mn^{55} nuclei: cryogenic aspects. 50.
- and Bernstein, S. Brute force polarization of In^{115} nuclei; angular momentum of 1.458-ev neutron resonance. 1348.
- , — Direct polarization of In^{115} nuclei; J-value for the 1.458 ev resonance. 1534.
- Dabrowski, J. and Sawicki, J. Simple model of the Li^6 nucleus and the Li^6 (n, T) He^4 reaction 53.
- Dacey, J. R., Smelko, J. F. and Young, D. M. Sorption of gases by vacant clathrate compounds. 2447.
- Dachert, F. Démonstration d'une mesure de champ magnétique par résonance nucléaire. 2101.
- Dadda, L. s. Amman, F. 1125.
- Dadson, R. S. Absolute measurement of high pressures. 1097.
- Dähnrick, W., Neuert, H. und Timm, U. Linsensystem für Bandgeneratoren mit veränderlicher Spannung. 934.
- Dällenbach, W. Konstruktion einer Quelle positiver Ionen. 759.
- Dänzer, H. and Kollmann, W. Strömungsverhältnisse an der Lippenöffnung von Orgelpfeifen. 1107.
- Daggett, E. H. and Grove, G. R. Gamma-ray spectrum of polonium-209. 1579.

- Dahanayake, C., Francois, P. E., Fujimoto, Y., Iredale, P., Waddington, C. J. and Yasin, M.* Production of heavy mesons and hyperons in nuclear disintegrations. 561.
- Dahl, Odd and Randers, Gunnar.* Heavy-water reactor at Kjeller, Norway. 1753.
- , *Winfried, Jellinghaus, Werner und Houdremont, Eduard.* Zwischenstufenumwandlung an Manganstählen. 1473.
- Dahlberg, D. A. s. Bollinger, L. M.* 957, 1564.
- , *R. Grenzen der Meßbarkeit kleiner Temperaturdifferenzen und Wärmemengen, dargestellt an einer Theorie der Thermo-nadel.* 745.
- Dahler, J. and Hirschfelder, J. O.* Symmetrized cell theory of liquids. 448.
- Dahlman, Bengt A.* Double-ground-plane strip-line system for microwaves. 151.
- Dain, J.* Factors in the design of power amplifiers for ultra high frequencies. 1057.
- Dainton, F. S. s. Collinson, E.* 612.
- Daitch, P. B., Lazarus, J. P., Hull, M. H. jr., Benedict, F. D. and Breit, G.* Validity of semiclassical treatment of Coulomb excitation. 82.
- *s. Benedict, F. D.* 1569.
- *s. Bludman, S.* 537.
- *s. Breit, G.* 82, 1496.
- Dakers, R. G. s. Halpern, J.* 1114.
- Dakin, T. W., Philofsky, H. M. and Divens, W. C.* Effect of electric discharges on the breakdown of solid insulation. 1661.
- Dale, B. s. Champion, F. C.* 1227.
- , *W. M. et Russell, C.* Action des rayonnements ionisants sur la catalase en présence de cystéine, cystine et glutathione. 704.
- Dalgarno, A. and Griffing, G. W.* Quantum mechanical calculation on the stopping cross section of hydrogen atoms for protons. 603.
- and *Lewis, J. T.* Exact calculation of long-range forces between atoms by perturbation theory. 621.
- — Representation of long range forces by series expansions. I. Divergence of the series. II. Complete perturbation calculation of long range forces. 723.
- — Approximate molecular orbitals. IV. $3p\sigma_u$ and $4f\sigma_u$ states of H_2^+ . 2007.
- Dalgarno A. s. Bransden, B. H.* 901.
- *s. Buckingham, R. A.* 2404.
- Dalhamn, T. s. Rhodin, J.* 2223.
- Dalitz, R. H.* Pion production in electron-proton collisions. 235.
- Radiative τ -meson decay. 1338.
- Charge independence in light hyperfragments. 1991.
- Analysis of τ -meson data and the nature of the τ -meson. 2001.
- *s. Kalos, M. H.* 245, 2041.
- Dallaorta, N. and Lanza, G.* Stars produced by negative K-mesons. 563.
- *s. Ceolin, C.* 1520.
- *s. Costa, G.* 763.
- Dallas, J. P. s. Stuelpmagel, T. R.* 908.
- Dallemagne, M. J., Fabry, Claudine and Bodson, P.* Exchange of bone calcium with Ca^{45} . 1273.
- Dallendörfer, R.* Klein-Ultraschalltöpfe für das Laboratorium. 1738.
- Dallwigk, Edouard s. Briner, Emile.* 1627.
- Dally, E. s. Klingensmith, R.* 240.
- Daly, N. R. and Emeleus, K. G.* Initiation of hot-cathode discharges. 481.
- — Discharges from a flat thermionic cathode. 2488.
- *s. Emeleus, K. G.* 1234.
- *jr., R. T. and Holloway, J. H.* Nuclear magnetic octupole moments of the stable gallium isotopes. 430.
- Dalziel, C. F.* Threshold of perception currents. 2552.
- Dam, C. F. s. Bell, E. E.* 1744.
- Damodaran, K. K. and Curr, R. M.* Single scattering of fast electrons by atomic nuclei. 1601.
- Damon, R. W. and Redington, R. W.* Electrical and optical properties of indium selenide. 474.
- Danby, C. J. s. Frey, H. M.* 1124.
- *s. Stephen, M. J.* 383.
- Daniel, E. D.* Flux-sensitive reproducing headformagnetic recording systems. 22.
- , *H. and Nierhaus, R.* Kontinuierliches β -Spektrum des RaC . 1367.
- , *John H. and Brackett, Frederick S.* Infrared recording of optical density vs linear frequency. 1882.
- , *R. R. and Lal, D.* Nuclear interactions of K-mesons. 1757.
- and *Pal Yash.* Abnormal τ -meson decay. 939.
- *George, E. C. and Peters, B.* Range-energy relation in nuclear emulsions. 1324.

- Daniel, Friedmann, G., Lal, D., Pal, Yash and Peters, B.* [Construction of large nuclear emulsion block detectors. 225.
- Daniels, Farrington s. Ockerman, John B.* 1699.
- , *J. M., Grace, M. A., Halban, H., Kurti, N. and Robinson, F. N. H.* Alignment of cobalt 58. 2358.
- , *M., Scholes, G. and Weiss, J.* Action of X-rays on aqueous solutions of nucleic acids and some nucleotides. 1276.
- Danielson, G. C. s. Redin, R. D.* 1420.
- *s. Whitsett, C. R.* 1434.
- , *W. E. s. Pierce, J. R.* 2187.
- Danielsson, Lars s. Carlsson, C.* 503.
- Danjon, André, Texereau, Jean et Guinot, Bernard* Réalisation d'un astrolabe à prisme in impersonnel. Etude et résultats. 2230.
- Dannenberg, Heinz und Steidle, Walter.* Systematik der UV-Absorption. II. Methylhomologe des 1,2-Cyclopentenphenanthrens. 2061.
- Danner, H. R. and Pepinsky, R.* Specific heat anomaly of ferroelectric cadmium niobate at the Curie temperature. 1870.
- *s. Frazer, B. C.* 1660.
- Danon, J. s. Coche, A.* 2162.
- D'Ans, Jean und Breckheimer, Wa.* Elektrochemie des aktiven Eisens. 2152.
- Dapigny, J., Kieffer, J. et Vodar, B.* Ondes de choc engendrées dans l'argon liquide et leur étude par radiographie ultrarapide. Compression de l'argon aux très hautes pressions. 1950.
- Darbyshire, J.* Storm waves in the North Atlantic Ocean. 1703.
- , *J. A.* Electron gun of the cathode-ray tube. Tetrode or triode? 2417.
- Dardel von, G. F.* Portable twenty-four channel kicksorter. 34.
- , *G. and Sjöstrand, N. G.* Diffusion parameters of thermal neutrons in water. 86.
- — Absorption cross section of boron for thermal neutrons. 604.
- Darden, S. E.* Determination of the strength function of nuclear energy levels. 1557.
- , *Haeblerli, W. and Walton, R. B.* Small angle scattering of 1-Mev neutrons by intermediate and heavy nuclei. 86.
- , *Okazaki, A. and Becker, R. L.* Determination of nuclear level density. 1361.
- Darden Perkins, R. B. and Walton, R. B.* Small-angle scattering of neutrons by intermediate and heavy nuclei. 1597.
- *s. Barschall, H. H.* 1159.
- Darin, S. R. s. Taylor, G. R.* 1414.
- Darmois, Eugène s. Darmois-Sutra, Geneviève.* 661.
- Darmois-Sutra, Geneviève et Darmois, Eugène.* Surtension d'hydrogène. 661.
- Darnell, Alfred J. s. Farber, Milton.* 1116.
- , *F. J. and Friedberg, S. A.* Electrical breakdown in germanium at low temperatures. 2472.
- Darrow, Karl A.* 1955 Spring Meeting held at Washington, D. C., April 28–30, 1955. 182.
- , *K.* 1954 Thanksgiving Meeting held at Chicago, Illinois, November 26–27, 1954. 1.
- 1955. Annual Meeting held at New York City, January 27–29, 1955. 2.
- 1955 March Meeting held at Baltimore, March 17–19. 2.
- 1955 June Meeting at Toronto, Canada. 535.
- Proceedings of the American Physical Society. Meeting held at Mexico City, Mexico, August 29–31, 1955. 1090.
- Halbleiter. 1217.
- Das, A. K.* Can matter be created out of cosmic radiation? 1971.
- , *P. P. s. Chatterjee, B.* 1321.
- , *S. C.* Fitting of truncated type III curves to daily rainfall data. 1487.
- , *T. P. and Behrson, R.* Quadrupole polarization of charge-clouds in ions. 1500.
- and *Roy, D. K.* Spin-echoes in the presence of non-axially symmetric quadrupole interaction in crystals. 123.
- Dasgupta, A. K. s. Sinha, K. P.* 1823.
- , *D. R.* Crystal class of Na_2SO_4 . III. 795
- and *Maitra, J. C.* X-ray diffraction study of limonite. 1005.
- DasGupta, M. K. s. Jennison, R. C.* 880.
- Dash, Gregory s. Sommers jr., Henry S.* 420.
- , *J. G. and Taylor, R. Dean.* Transition temperatures of He^3 - He^4 solutions. 1198.
- , *W. C.* Effect of crystal distortion upon change of resistivity of silicon by heat treatment. 1220.
- Birefringence in silicon. 2474.

- Dash, Gregory, Newman, R. and Taft, E. A.* Optical absorption in single crystals of Ge and Si. 2121.
- Datta, S.* Electronic collisional frequency in the F-region over Calcutta. 1286.
- *s. Baral, S. S.* 1286.
- Daubeny, R. de P. s. Bunn, C. W.* 1192.
- Daubin, Scott C. and Hamilton, Donald R.* Perturbed gamma-gamma directional correlation in Cd¹¹⁴. 1580.
- Daudel, P. s. Maniey, J.* 552.
- *s. Thuillier, Germaine.* 552.
- , *R. Etat actuel de la théorie du cortège électronique.* 1719.
- *s. Chalvet, O.* 367.
- Localisabilité des corpuscules dans les noyaux et les cortèges électroniques des atomes et des molécules. 2271.
- *s. Brion, Mlle Hélène.* 2406.
- *s. May, Serge.* 1742.
- *s. Roux, Mme Monique.* 1811.
- Daudin, A. s. Daudin, J.* 2046.
- , *J., Auger, P., Cachon, A. et Daudin, A.* Variations diurnes en temps solaire et en temps sidéral des grandes gerbes de l'air. 2046.
- Daunt, J. G. and Korrington, J.* Susceptibility and entropy of F-centers. 1407.
- and *Smith, R. S.* Liquid helium. Recent aspects. 2074.
- *s. Gordon, W. L.* 801.
- *s. Jastram, P. S.* 2359.
- Dautreppe, D. et Paulevé, J.* Gaussmètre de précision à résonance nucléaire. 643.
- *s. Buyle-Bodin, Maurice.* 1642.
- Dauvillier, A.* Structure interne de la Terre. 1484.
- Davey, A. R. s. Thewlis, J.* 2313.
- , *C. N. s. Florida, C. D.* 1119.
- , *J. E. and Coomes, E. A.* Thermionic properties of thorium on tungsten single crystals. 1446.
- David, H. G. and Hamann, S. D.* Chemical effects of pressure. II. 2325.
- Davidson, W. C. s. Anderson, H. L.* 1602.
- *s. Kruse, U.* 1386.
- Davids, N. and Parkinson, R. W.* Wave solutions for critical and near-critical coupling conditions in the ionosphere. 2243.
- Davidson, C. F.* Transistor as a d.c. amplifier for use in microwave measurements. 136.
- , *E. H. s. Weatherly, T. L.* 101,
- , *H. R. and Hemmendinger, Henry.* Colorimetric calibration of colorant systems. 860.
- Davidson, J. A. B. s. Bell, J.* 1879.
- , *J. M.* Experimental thermal conductivities of gases and gaseous mixtures. 1740.
- , *P. M.* Growth of current between parallel plates. 1233.
- , *W. L. s. Craig, David.* 456.
- Davies, D. M.* Hysteresis in rubber. 267.
- , *G. R. s. Burstall, F. H.* 369.
- , *I. L. s. Woodward, P. M.* 2185.
- , *J. and Franzinetti, C.* Expedition to Sardinia, 1953. 1090.
- , *J. G.* Electrical method of recording small volume changes. 193.
- , *J. H., Evans, D., François, P. F., Friedlander, M. W., Hillier, R., Iredale, P., Keeffe, D., Menon, M. G. K., Perkins, D. H., Powell, C. F., Baggild, J., Brene, N., Fowler, P. H., Hooper, J., Ortel, W. C. G., Scharff, M., Crane, L., Johnston, R. H. W., Ceallaigh, C. O., Anderson, F., Lawlor, G., Nevin, T. E., Alvial, G., Bonetti, A., di Corato, M., Dilworth, C., Levi Setti, R., Milone, A., Occhialini, G., Scarsi, L., Tomasini, G., Ceccarelli, M., Grilli, M., Merlin, M., Salandin, G. and Sechi, B.* Masses and modes of decay of heavy mesons produced by cosmic radiation. (G-stack collaboration.) 763.
- , *J. T.* Shapes of some macromolecules at interfaces. 270.
- and *Rideal, Sir Eric.* Penetration of ions into charged films. 270.
- , *L. W.* Spectroscopic study of caesium discharges in a magnetic field. 2493.
- , *M. s. Dryden, J. S.* 2108.
- , *R. D. and Williams, D. R. W.* Alternative identification of the radio source in the direction of the galactic centre. 1483.
- , *R. D. s. Williams, D. R. W.* 2235.
- , *R. M. s. Griffiths, L. J.* 1638.
- , *R. O. and Scaife, B. K.* Onsager's theory of the dielectric constant of polar liquids. 1659.
- , *R. W.* Energy spectrum of turbulence for the entire range. 17.
- , *T. V.* Forced flow due to heating of a rotating liquid. 1318.
- Davis, B. I. s. Marx, J. W.* 2317.
- , *D. M., Hort, J. C. and Morgan, K. Z.* Aerial surveying for radioactive ground contamination. 1989.
- , *G. s. Herz, A. J.* 1323
- , *G. L. s. Wetherill, G. W.* 1750.

- Davis, H. L. and Corson, D. R.* Elastic photoproduction of π^0 mesons from euterium at 270 Mev. 1523.
- , *jr., L. DeMars, G. A., Rubin, L. G. and Straub, W. D.* Electrical properties of several silicon-germanium alloys. 134.
- *s. DeMars, G.* 2127.
- *s. Statz, H.* 1434, 1653, 2127.
- , *Leo s. Gilbert, Mitchell.* 1944.
- , *jr., Leverett.* Interplanetary magnetic fields and cosmic rays. 1605.
- Modified Fermi mechanism for the acceleration of cosmic rays. 1605.
- Fermi's theory of the origin of cosmic rays. 2043.
- Fluid self-excited dynamo. 2233.
- Interplanetary magnetic fields and cosmic rays. 2561.
- , *Raymond.* Attempt to detect the antineutrinos from a nuclear reactor by the $\text{Cl}^{37}(\bar{\nu}, e^-)\text{A}^{37}$ reaction. 399.
- , *R. E. and Goldberg, Colman.* Magnetoresistance and planar Hall effects in n-type germanium. 1028.
- , *R. E. s. Goldberg, Colman.* 2121, 2132.
- *s. Peacock, John.* 2322.
- , *R. H. s. Graves, J. D.* 229.
- , *Divatia, Ajay S., Moffat, R. D. and Lind, D. A.* Coulomb existation of Re, In and Hg by protons. 1790.
- *s. Divatia, Ajay S.* 1790.
- , *Roland W. s. Graves, Elizabeth R.* 421.
- *s. Ribe, F. L.* 1539.
- , *Sidney.* Induction potentiometer as an angular position indicator. 544.
- , *S. P. s. Bitter, F.* 97.
- , *jr., W., Conley, L. L. and Rutledge, G. P.* Apparatus for rapid determination of liquid-liquid and liquid-solid equilibria involving corrosive materials. 12.
- Davison, W. H. T.* Infrared microcell. 1064.
- Davison, J. W. s. Burstein, E.* 482.
- Davy, N. s. Peake, H. J.* 644.
- Dawe, P. G. M. and Deutsch, J. A.* Audio-frequency meter for graphing frequency variations in the human voice. 1692.
- *s. Humphrey, George.* 1274.
- Dawihl, Walther.* Formation de grains dans les alliages frittés. 2547.
- Dawson, I. M. s. Anderson, N. G.* 259.
- , *J. K. s. West, D.* 2030.
- , *J. M. and Slawsky, Z. I.* Effect of intermolecular forces on the rapid expansion of a gas from an initial condition of very high density and temperature. 27.
- Dawson, I. M. s. Jansen, L.* 2418.
- , *W. K.* Angular and energy distributions of photoprotons from aluminum, copper, rhodium and gold. 577.
- Dawton, R. H. s. Allen, W. D.* 2113.
- Day, G. A.* Radar observations of rain at Sydney, New South Wales. 2250.
- , *J. W. B. s. Crysdale, J. H.* 677.
- , *jr., M. C., Eakins, G. W. and Voigt, A. F.* Disintegration schemes of the Te^{127} and Te^{129} ground states. 1568.
- , *M. J. and Stein, Gabriel.* Chemical dosimetry of ionizing radiations. 2227.
- , *Paul P.* Electromagnetic spectrum of Am^{241} . 583.
- , *R. B., Mills, R. L., Perry jr., J. E. and Scherb, F.* n-p scattering at 20 Mev. 979.
- and *Huus, Torben.* Gamma radiation from B^{10} bombarded by protons. 770.
- , *R. P., Hopton, R. L. and Schmidt, A. C.* Highspeed air-driven shutter for controlling exposures to a convergent beam of high-intensity thermal radiation. 158.
- Dayal, B. and Sharma, R. S.* Inter-atomic force law and equation of state of solids. 797.
- Dayton, B. s. Bridge, H. S.* 44.
- , *I. E., Shoemaker, F. C. and Mozley, R. F.* Measurement of two-dimensional fields. II. Study of a quadrupole magnet. 118.
- *s. Schrank, G.* 416.
- Dazai, T. s. Takemoto, S.* 2367.
- De, M.* Influence of astigmatism on the response function of an optical system. 861.
- , *S. C.* Contributions to the theory of Stokes waves. 548.
- Deacon, G. E. R.* National Institute of Oceanography. 1290.
- Dean, C.* Zeeman splitting of nuclear quadrupole resonances. 1423.
- , *Donald E.* Using the snooperscope tube with the spectrometer. 182.
- Deas, Herbert D.* Diffraction of X-rays by a random assemblage of molecules having partial alignment. 1010.
- Bond lengths of unsaturated hydrocarbons. 1632.
- Deb, S.* Amplification factors and mutual conductance of a beam power valve. 682.

- Debenedetti, A., Garelli, C. M., Tallone, L. and Vigone, M.* Detailed analysis and discussion of two narrow showers of pairs of charged particles. 989.
- DeBenedetti, S. s. Stearns, M.* 47, 397, 940.
- Debiais, Louis, Niclaude, Michel et Letort, Maurice.* Cinétique et mécanisme de photooxydation de l'éther benzylique en phase liquide. 846.
- DeBitetto, D. J. and Fisher, L. H.* First and second Townsend coefficients in hydrogen and nitrogen. 836.
- Debot, F.* Structure des solutions dans l'eau des halogénures de zinc et de cadmium. 1742.
- Debrunner, Hans U.* Lupenphotographie. 2521.
- Debs, R. J., Eisinger, J. T., Fairhall, A. W., Halpern, I. and Richter, H. G.* Yields of photonuclear reactions with 320-Mev X-rays. I. Experimental results. 55.
- *s. Halpern, I.* 55.
- Debye, Peter.* Scientific work of Enrico Fermi. 2255.
- Decaux, B.* Émissions de fréquences étalon et de signaux horaires. Décisions du Comité Consultatif International des Radiocommunications (Londres 1953). 273.
- Decius, J. C. s. Teranishi, Roy.* 448.
- Dedrick, K. G.* Deuteron model calculation of the high-energy nuclear photoeffect. 577.
- Deuteron-model calculation of the high-energy nuclear photoeffect. 2014.
- Deeg, E.* Dynamisches Modell zur Demonstration einiger charakteristischer Eigenschaften des Systems Ton-Wasser. 869.
- und *Huber, O.* Dielektrische Eigenschaften einiger Tonmassen im Dezimeterwellengebiet in Abhängigkeit vom Wassergehalt. 869.
- *s. Dietzel, A.* 869.
- Deeley, C. M. and Richards, R. E.* Position of the hydrogen atom in a hydrogen bond from nuclear magnetic resonance spectra of hydrazine fluoride. 278.
- , *Lewis, P. and Richards, R. E.* Proton magnetic resonance spectra of hydrazine salts. II. Line width transitions. 278.
- , *E. M.* Integrating microdensitometer for biological cells. 1691.
- Deemter, van J. J. Broeder, J. J. and Lauwerier, H. A.* Fluid displacement in capillaries. 2289.
- Defant, Albert.* Zwei Hauptprobleme der physikalischen Ozeanographie. 2577.
- Interne Wellen, besonders solche mit Gezeitencharakter. 2577.
- Theoretische Überlegungen zum Phänomen des Windstaus und des Auftriebs an ozeanischen Küsten. 2581.
- Defay, R. et Roba-Thilly, J.* Existence d'un palier dans la courbe d'évolution au cours du temps de la tension superficielle d'une solution. 2445.
- *s. Prigogine, I.* 2140.
- Defize, L. F. s. van der Willigen, P. C.* 512.
- Degano, Ulpiano.* Cavita di accoppiamento e comportamento acustico dell'orecchio artificiale e dell'orecchio umano. 1274.
- Degrois, Maurice s. Busnel, René-Guy.* 744.
- Dehlinger, U., Diehl, J. und Meissner, J.* Fließgesetz vielkristalliner Metalle. 913.
- *s. Schenk, H.* 2464.
- Dehmelt, H. G.* Nuclear quadrupole resonance in some metal chlorides and oxychlorides. 1422.
- Kernquadrupolspektren in zwei Bortrialkylen. 2007.
- Atomic phosphorus paramagnetic resonance experiment employing universal dissociator. 2459.
- Dehn, R.* Measurement of rapid fluctuations of temperature. 1880.
- Mechanism of pulse temperature rise on the surface of thermionic cathodes. 2186.
- Deirmendjian, Diran and Sekera, Zdenek.* Global radiation in a Rayleigh atmosphere. 1288.
- Déjardin, G., Janin, J. et Peyron, M.* Procédés d'étude spectrophométrique du proche infrarouge. 315.
- , — *Eyraud, Ivan.* Spectroscopic study of the discharge and afterglow produced in nitrogen by pulsed microwaves. 1404.
- DeJuren, J. and Chin, J.* Manganese thermal neutron activation cross section. 1538.
- , *James A. and Rosenwasser, Hyman.* Diffusion length of thermal neutrons in water. 981.
- Dekker, A. J.* Secondary electron emission and color centers. 674.

- Dekker A. J. s. *Lipsett, Frederick*. 326.
 —, *Th. J. s. Clay, J.* 2044.
Delahay, Paul s. Berzins, Talivaldis. 658, 2089.
Delaroff, Vladimir s. Fabian, Mlle Joyce. 627, 2059.
Delbecq, C. J. and Yuster, P. H. Photon-induced diffusion in thin films and single crystals of potassium iodide. 1635.
 —, *Pringsheim, P. and Yuster, P. H.* Optical and electrical properties of lithium fluoride X-rayed at liquid nitrogen temperature. 799.
 —, *Charles s. Yuster, Philip*. 1126.
 —, *C. J. s. Primak, W.* 799.
Delcroix, Jean-Loup s. Bayet, Michel. 1047, 1234.
Delépine, Marcel. Arnold Frederick Holleman, correspondant pour la section de chimie. 2254.
Delgado, Ramón Sánchez. Catalizadores de níquel y cobre en la hidrogenación saturante de glicéridos y de ácidos grasos. I. Preparación, actividad y vida media de los catalizadores constituidos exclusivamente por níquel y cobre o por uno de estos metales. 2326.
 II. Ventajas e inconvenientes de los catalizadores constituidos exclusivamente por níquel y cobre. Preparación y características de contactos obtenidos por precipitación de sales solubles de níquel, cobre y aluminio con silicatos y carbonatos alcalinos. 2326.
Delhaye, Jean. Points de fréquence maximum dans la distribution des vitesses particulières des étoiles plus proches que 20 parsecs. 517.
 — Propriétés cinématiques des étoiles naines de type M à raies d'émission. 2235.
Delibrias, G. Dosage du radon dans l'air. 2576.
Dell, H. A. Stages in the development of an arrested scan type microscopic particle counter. 2095.
 — and *Gentry, C. H. R.* Direkt anzeigender Präzisionspolarograph. 2484.
Dellis, A. N. s. Collington, D. J. 1529.
Delsing, A. M. G. s. Winkel, P. 1947, 1948.
DeLuca, H. A. s. Dennis, G. E. 173.
Delvaux, Mlle Marie-Louise. Etude au moyen de l'effet Raman de la constitution des solutions d'halogénures de zinc, de cadmium et de mercure, dissous seuls ou en présence d'ions halogènes, dans divers solvants. Conditions d'existence des molécules AX_2 et $X-A-Y$ et des ions AX_4^- et AX_n^{4-n} . 551.
Demarcq, J. Surfaces asphériques. 2531.
 — s. *Besse, Yvonne*. 2217.
DeMars, G. Statz, H. and Davis jr. L. Conductance of p-type inversion layers on n-type germanium. 2127.
 —, *G. A. s. Davis, jr. L.* 134.
 — s. *Statz, H.* 1434, 1653, 2127.
Demeur, M. s. Géheniau, J. 361.
Demichelis, F. Decay scheme of $^{212}_{84}\text{Po}$ (ThC'). 581.
 — and *Radicati, L. A.* β - γ angular correlation of $^{284}_{83}\text{Bi}$. 1161.
 — *Ricci, R. A. and Trivero, G.* β -decay of $^{208}_{81}\text{Tl}$ (ThC'). 1367.
 — s. *Chinaglia, B.* 1121.
 — Schema di decadimento del $^{212}_{84}\text{Po}$ (ThC'). 1149.
 — e *Malvano, Renato.* Schema di decadimento del $^{214}_{84}\text{Po}$. 1149.
Demler, L. E. s. Kirwan, J. O. 1099.
Demon, L. de Felice, P. Gondet, H., Kast, Y. et Pontier, L. Résultats obtenus au cours du printemps 1953. 2564.
Demorest, H. L. and Erickson, J. H. Automatic sample changer for well-type scintillation counter. 758.
 — s. *Higatsberger, Michael J.* 489.
Dempsey, D. F., Miller, W. C. and Waldman, B. Third-order aberration and focusing with sector-shaped magnetic field. 1123.
 —, *E. and ter Haar, D.* Three-dimensional body-centred cubic ferromagnet. 1017.
Dempster, J. R. H. Feynman field theory. 363.
Denda, Seiichi and Kikuchi, Makoto. Measurement of the germanium resistivity by the four points method. 1027.
 — s. *Kikuchi, Makoto*. 1229.
Denes, P. s. Kalmus, H. 1077.
Dengler, M. A. s. Goland, Martin. 14.
Denis, P. M. s. Griwet, P. 1917.
Denison, Irving A. and Romanoff, Melvin. Corrosion of galvanized steel in soils. 2219.
Denisse, Jean-François s. Bayet, Michel. 1047, 1234.
Denman, Eugene D. s. Richards, Hans Kohn. 1276.

- Denney, J. M.* Magnetic susceptibility of Ti and substitutional Ti alloys. 647.
- Dennhardt, A. und Bartels, K.* Funkenstörung von Hochfrequenzgeräten und -anlagen zur Wärmezeugung für industrielle Zwecke. Einführung zum Entwurf VDE 0871 Teil 2/... 53. 2504.
- Dennis, G. E. and DeLuca, H. A.* Use of radioactive isotopes for diagnostic radiology. 173.
- Dennis, S. C. R. and Poots, G.* Solution of linear differential equations. 1491.
- *s. Allen, D. N. de G.* 895.
- Dent, L. S. and Taylor, H. F. W.* Attachment for high-temperature single-crystal X-ray work. 1819.
- Denton, J. J. s. Hartshorn, L.* 2453.
- Déot, A. R., Finch, G. I. and Gharpurey, M. K.* Nature of epitaxial crystal growth. 2420.
- DePangher, John.* Radiative capture of 300-Mev neutrons in hydrogen. 574.
- Depassel, Roger, s. Santon, Lucien.* 914, 1946
- Depken, S. s. Bruno, B.* 2368.
- Derbyshire, W. D. s. Yearian, H. J.* 1822.
- Derfler, Heinrich.* Electromagnetic difference-equation of importance in the theory of traveling-wave tubes. 1251.
- *Theory of dislocated waveguide.* 1664.
- Derge, G. s. Simnad, M. T.* 2154.
- Derry, R., Garner, W. E. et Gray, T. J.* Variations par adsorption d'oxygène de la semi-conductivité de films minces d'oxyde cuivreux. 289.
- Dert, L. F.* Experimental television transmission over the coaxial cable between Amsterdam and Haarlem. 2185.
- Dervichian, D. G.* Mousses: formation, stabilité, destruction. 1419.
- Desai, U. D. s. Sarabhai, V.* 427, 2047.
- Descamps, Jacques s. Castaing, Raymond.* 2210.
- Deser, S., Goldberger, M. L., Baumann, K. and Thirring, W.* Energy level displacements in pi-mesonic atoms. 396.
- Deshotels, W. J. and Weber, A. H.* Effect of strong electrostatic fields on the resistance of tungsten wires in high vacua. 467.
- DeSorbo, Warren.* Low temperature specific heat of tellurium. 24.
- Desoyer, Elisabeth.* Photophoretische Kräfte. 2189.
- *K. und Slibar, A.* Berechnung von Pendel-Schwingungstilgern. 910.
- Despujols, Jacques et Lumbroso, Daniel.* Dosage de faibles teneurs de hafnium dans le zirconium par émission de fluorescence X. 1894.
- Dessler, Alexander, J. and Fairbank, William M.* Amplitude dependence of the velocity of second sound. 449.
- Dessoulavy, Roger.* Découplage aux basses fréquences de la cathode et de la grille-écran d'un tube amplificateur. 852.
- DeStaebler jr., H. C., Bridge, H. S., Courant, and Rossi, B.* Unusual cosmic-ray event. 44.
- *Rossi, B. and Sreekantan, B. V.* S-particles. 1337.
- *Nuclear absorption of negative K particles.* 45.
- *and Sreekantan, B. V.* Nature of the neutral secondary particle produced in the decay of the $K\pi_2$ -meson. 1136.
- *s. Bridge, H. S.* 44, 1135.
- Destouches-Aeschlimann, Mme Florence.* Dérivée et différentielle totale d'un opérateur. 1921.
- *Intégrales opératorielles et extension de la mécanique ondulatoire.* 1926.
- Destouches-Férier, Paulette.* Elimination des paramètres cachés dans une théorie physique. 186.
- Destriau, Georges.* Electroluminescence. Ondes de luminance absolues et vies moyennes des centres excités. 2206.
- Detenbeck, R. W. s. Braid, T. H.* 385.
- Dettmering, W. s. Leist, K.* 2297.
- Detwiler, D. P.* Electrical properties of gallium antimonide. 474.
- Deutsch, F. and Burde, J.* Insertion of the radioactive sample into a beta-ray spectrometer. 230.
- *J. A. s. Dawe, P. G. M.* 1692.
- *Martin.* Spinisotopie, du point de vue expérimental, aux basses énergies 49.
- *s. Greenberg, J. S.* 1331.
- *s. Weinstein, R.* 1129.
- *Robert W.* Analysis of secondary particles resulting from high-energy nuclear bombardment. 54.
- *S. et Nikolic, M.* Limite supérieure d'un embranchement α de l'UX₁ (²³⁴Th). 765.
- *Sarah, Hirschberg, D. et Picciotto, E.* Mesure des âges géologiques par les halos pléochroïques. 1516.
- * *Deutsche Forschungsgemeinschaft.* Angewandte Forschung in der Bundesrepublik Deutschland. 2253.

- Deutschmann, M.* Neue instabile Teilchen in der kosmischen Strahlung. 2348.
- , *Cresti, M., Greening, W. D. B., Guerriero, L., Loria, A. and Zago, G.* Angular correlations in V° type decays. 1335.
- — — — — Anomalous V° event. 1999.
- Kernwechselwirkung schneller μ -Mesonen. 422.
- Devanathan, M. A. V. s. Parsons, Roger.* 2141.
- Devaux, Henri.* Couches de transition, dans les lames très minces polymoléculaires, entre les zones cristallines et les zones monomoléculaires. 2086.
- DeVaux, L. H. and Pizzarello, F. A.* Elastic constants of indium antimonide. 2131.
- Dever, J. A.* Control of nuclear reactors. 1330.
- Deverall, G. V., Meissner, K. W. and Zissis, G. J.* Precision wavelength and isotopic shift measurements of germanium arc lines. 95.
- , *L. I. and Thorne, C. J.* Thin-plate problems by the sine transform. 1311.
- Devins, J. C. s. Crowe, R. W.* 1045.
- Devon, W. A.* Time factor in process control. 727.
- Devons, S. and Towle, J. H.* Range velocity relationship for ^7Li ions in solids. 1984.
- , *Manning, G. and Bunbury, D. St. P.* Measurement of γ -transition lifetimes by recoil methods. 2379.
- — and *Towle, J. H.* Measurement of γ -transition lifetimes by recoil methods. III. E2 transitions in some even-even nuclei. 1150.
- *s. Bunbury, D. St. P.* 1150.
- Dew, G. D.* Preparation of plane diffraction grating replicas from helical rulings. 313.
- Preparation of precision resolving power test objects. 1061.
- Dewan, J. T. s. Allen, K. W.* 403.
- Dewar, Melvin, A. and Hentz, Robert R.* Potentiometric determination of iron by X-ray oxidation. 1936.
- Dewing, E. W.* Vapor pressures of the system sodium chloride-aluminium chloride. 2319.
- DeWire, J. W. s. Swartz, C. E.* 1325.
- *s. Wolfe, B.* 1522.
- DeWitt, Bryce S.* Pair production by a curved metric. 364.
- De Witt* State-vector normalization in formal scattering theory. 1585.
- *s. Reifman, Alfred.* 1930.
- , *T. W. s. Padden, F. J.* 2080.
- *s. Pollock, D. J.* 2078.
- Dexter, D. L.* Absorption cross section for light in perfect solids. 1886.
- Tunneling of electrons in alkali halides. 2424.
- , *F. D.* Rotational plastometry applied to molten polyethylene. 1630.
- , *R. N.* Third harmonic cyclotron resonance of holes in germanium. 1032.
- and *Lax, Benjamin.* Cyclotron absorption in bismuth. 1853.
- — Effective masses of holes in silicon. 1858.
- , *Zeiger, H. J. and Lax, Benjamin.* Anisotropy of cyclotron resonance of holes in germanium. 131.
- , *Lax, Benjamin, Kip, A. F. and Dresselhaus, G.* Effective masses of electrons in silicon. 1857.
- , *Zeiger, H. J., Lax, Benjamin and Rosenblum, E. S.* Anisotropy of cyclotron resonance in germanium. 131.
- *s. Lax, Benjamin.* 131.
- Dhar, S. K. s. Das, Gupta, A. K.* 2542.
- Dhillon, J. S. s. Ramanathan, K. G.* 1016.
- Dialer, K. und Rothe, W.* System Cer-Wasserstoff. 924.
- Diamond, H. s. Ghiorso, A.* 1322.
- *s. Magnusson, L. B.* 579.
- and *Barnes, Raymond F.* Alpha half-life of Pu^{244} . 2023.
- , *Joseph M.* Checking codes for digital computers. 1922.
- , *R. M. s. Sharp, R. A.* 59.
- Diana, E. e Duimio, F.* Energia di legame degli iperframmenti leggeri. 562.
- Díaz, Emilio Pajares.* Gráficos para cálculo y construcción de piñones cilíndricos helicoidales. 2298.
- Dibeler, Vernon H., Mohler, Fred L. and de Hemptine, M.* Mass spectra of the deuterioethylenes. 1618.
- Dibner, Bern.* Ten founding fathers of the electrical science. IX. Joseph Henry on electromagnetism and telegraphy. 2255.
- Dicke, R. H.* Coherence in spontaneous radiation processes. 1300.
- Angular momentum of a real field 1715.
- *s. Romer, R. H.* 1817, 2192.
- *s. Wittke, J. P.* 429.

- Dickel, G. und Niececki, L. v.* Kinetik des Ionenaustausches an Harzaustauschern. II. 924.
- Dickmann, Herbert und Bauhoff, Günter.* Eisenhüttenmännische Gedenktage im Jahre 1954. 1918.
- Dickson, George s. Mitchell, J. A.* 2546.
- Diddens, A. N. s. Wheatley, J. C.* 2358.
- Dieckamp, H.* Shear modulus recovery of electron irradiated copper. 1175.
- Influence of lattice defects on the Young's modulus of copper. 2071.
- Dieckvoss, W.* Differentielle Aberration aus photographischen Polaufnahmen. 1480.
- Diederichsen, J. und Wolfhard, H. G.* Spectrographic examination of gaseous flames at high pressure. 2330.
- Diehl, Jörg und Braun, Reinhold.* Isotherm arbeitendes Kalorimeter für metallkundliche Untersuchungen. 1958.
- *Krause, Max, Offenhäuser, Werner und Starbwasser, Wolfgang.* Graphische Darstellungen der Schubspannungsverhältnisse in kubisch flächenzentrierten Kristallen. 1101.
- *s. Dehlinger, U.* 913.
- *L. s. Chacheris, J. C.* 2517.
- Dieke, G. H. und Heroux, L.* Zeeman effects and magnetic properties of neodymium salts. 1809.
- *s. Crosswhite, H. M.* 1460.
- *s. Porto, S. P. S.* 1814.
- *s. Stanley, R. W.* 1610.
- Diemer, G.* Light patterns in electroluminescent ZnS single crystals activated by diffusion of Cu. 328.
- Electroluminescentie. 2539.
- *Klasens, H. A. und Santen, van J. G.* Solid-state image intensifiers. 1072.
- *s. Zalm, P.* 329.
- Dieminger, Walter Geisweid, Karl-Heinz und Möller, Hans-Georg.* Echolotungen der Ionosphäre mit veränderlicher Frequenz bei schrägem Einfall. 2244.
- Dienes, G. J. s. Antal, J. J.* 1194.
- *s. Chipman, D. L.* 777.
- Dieringer, F.* Dielektrische Relaxationsuntersuchungen zur Frage spezieller Orientierungsmechanismen bei Cyclohexanderivaten und Diphenyläther. 1868.
- Diestel, H.-G.* Akustische Messungen an einem mechanischen Modell des Innenohres. 2551.
- Dietrich, C. F. s. Craig, H.* 1981.
- *Günther.* Oberflächenströmungen im Kattegat, im Sund und in der Beltsee. 2578.
- Systematische Fehler in den beobachteten Wasser- und Lufttemperaturen auf dem Meere und über ihre Auswirkung auf die Bestimmung des Wärmeumsatzes zwischen Ozean und Atmosphäre. 2581.
- *Jacob E. and Kennedy, William R.* Scintillation-counter safeguard for Co⁶⁰ source. 230.
- *Paul.* Messung der Einfangszeit von Neutronen einer Po-Be-Quelle in wasserstoffhaltigen Substanzen. 978.
- Dietrick, Harry s. Bugosh, John.* 2163.
- Dietze, H. D.* Wärmespannungen einer Kugel für vorgegebene zeitlich periodische Oberflächentemperatur. 1961.
- *s. Rüdiger, O.* 2310.
- Temperaturabhängigkeit der Versetzungsstruktur. 2071.
- *s. Leibfried, Günther.* 2071.
- Dietzel, A. und Deeg, E.* Erkennung und Messung von Anisotropien in undurchsichtigen, schlecht leitenden Stoffen. 869.
- *Wickert, Helmut und Köppen, Nina.* Zustandsdiagramm des Systems Li₂O-BaO·SiO₂. 2428.
- Digges, Thomas G. s. Geil, Glenn W.* 508.
- *s. Jenkins, William D.* 1268.
- Dighton, D. T. R.* Logarithmic device for a densitometer. 324.
- *s. Audran, R.* 1440.
- Dijk, van H. and Shoenberg, D.* Tables of vapour pressure of liquid helium. 215.
- Dijker, A. J. s. Clay, J.* 2402.
- Dikhoff, J. A. M. s. Addink, N. W. H.* 496.
- Dilla, van M. A. and Taysum, D. H.* Scintillation counter for assay for radon gas. 1978.
- *Schuch, R. L. and Anderson, E. C.* K-9; large 4π gamma-ray detector. 2342.
- Dillinger, J. R. s. Fleming, P. J.* 1197.
- Dillon, jr. J. A. and Farnsworth, H. E.* Adsorption of carbon dioxide on nickel single crystal surfaces using a radio-tracer technique. 2446.
- *T. J.* Photosensitive neon-argon discharge tubes in photometry. 297.
- Dilworth, C. s. Bonetti, A.* 930.
- *s. Davies, J. H.* 763.

- Dilworth, C. C., Goldsack, S. J. Goldschmidt-Clermont, Y. and Levy, F.* Magnetic deflection of fast charged particles in the photographic emulsion. 1977.
- Dimitroff, James M. s. Jacquez, John A.* 2192.
- Dimmick, Forrest L.* Specifications and calibration of the 1953 edition of the I. S. C. C. color aptitude test. 701.
- *s. Smith, Stanley W.* 1475.
- Dinghas, Alexandre.* Théorèmes concernant la convexité des moyennes d'une classe des fonctions sousharmoniques. 2260.
- Inégalités concernant une classe d'intégrales de Dirichlet. 2261.
- Dingle, R. B.* Scattering of electrons and holes by charged donors and acceptors in semiconductors. 129.
- Reflectivity of metals in the infra-red. 280.
- Solutions of the Schrödinger equation for finite systems, with special reference to the motion of electrons in Coulomb electric fields and uniform magnetic fields. 360.
- Dingwall, Andrew G. F. and Moore, H.* Effects of various oxides on the viscosity of glasses of the soda-lime-silica type. 263.
- Dinneen, G. U., Smith, J. R., Meter, van R. A., Allbright, C. S. and Anthoney, W. R.* Application of separation techniques to a high-boiling shale-oil distillate. 726.
- Dirac, P. A. M.* Lorentz transformation and absolute time. 2264.
- Dirian, J. s. Coriou, H.* 295.
- Ditchburn, R. W.* Optical instruments for the vacuum ultra-violet. 2193.
- Formulas for determining the optical constants from measurements on reflected light. 2197.
- and *Fender, D. H.* Stabilised retinal image. 512.
- *s. Clark, C. D.* 1408.
- Ditto, Steve J. s. Gordy, Walter.* 1907.
- Dittrich, E.* Verwendung einer einfachen Lochkamera im Röntgeninstitut. 1254.
- Ditzenberger, J. A. s. Fuller, C. S.* 1028.
- Divin, Mlle Lucienne s. Chalonge, Daniel.* 2234.
- Divatia, Ajay s. Davis, Robert H., Moffat, R. D. and Lind, D. A.* Coulomb excitation of In^{115} , I^{127} , Ta^{181} , Th^{232} and U^{238} . 1790.
- Divatia, Ajay s. Davis, Robert H.* 1790.
- Diven, B. C., Martin, H. C. Taschek, R. F. and Terrell, J.* Multiplicities of fission neutrons. 2019.
- Divens, W. C. s. Dakin, T. W.* 1661.
- Dixit, K. R.* Statistics of 29000 stars observed in nuclear emulsions in Kenya. 578.
- and *Agashe, V. V.* Oxides of copper formed in air. 133.
- , — Cuprous oxide formed at 410°C at pressures of air between 0,5 and 75 mm of Hg. 1114.
- Dixon, D. s. Curran, S. C.* 2009.
- , *Dwight R. and Bandtel, Kenneth C.* Photodisintegration of deuterons by high energy gamma rays. 576.
- , *E. O. s. MacNeille, S. M.* 688.
- , *W. R.* Energy and angular distributions of photoneutrons. 577.
- *s. Trainor, L. E. H.* 592.
- Dlouhy, Zdenek, Petrzilka, Vaclav and Rozkos, Miroslav.* Nuclear photoeffect in nickel, copper and zinc. 1354.
- Dmochowski, Leon, Haagenzen, Cushman D. and Moore, Dan H.* Studies in the electron microscope of thin sections of normal and malignant mammary tissues of mice of high and low-breast-cancer strains. 2223.
- Dobbs, E. R. s. Barker, J. R.* 2282.
- Dobovišek, B. s. Harliček, F. I.* 2015.
- Dobrin, Jay.* Use and maintenance of the a-c VTVM. 116.
- Dobrinski, P. and Hinrichs, H.* Lumineszenz von NaCl-Ag. 862.
- Dobrotin, N. A., Grajewskaja, J. I., Grigorow, N. L., Nikolski, S. I. und Rapoport, I. D.* Ionisationsspektrum der Teilchen der weichen und der harten Komponente der kosmischen Strahlung. 988.
- Dobrowolski, J. A. and Weinstein, W.* Optical aspherizing by vacuum evaporation. 1466.
- , *W., Jones, R. V. and Jeffries, C. D.* Paramagnetic resonance hyperfine structure of Co^{60} . 2107.
- *s. Jones, R. V.* 1212.
- Dobrowsky, A.* Algebraische Berechnung der axialsymmetrischen Diffusion und ihre Darstellung durch ein hydrodynamisches Modell (Methode der Strömungsteiler). 2430.
- Dobry, Mme A.* Effet électrovisqueux. IV. 641.

- Dobry, Me A.* Validité de la loi de Stokes dans les suspensions de particules sphériques et la détermination du nombre d'Avogadro. 810.
- Validité de la loi de Stokes dans les suspensions de particules sphériques et la détermination du nombre d'Avogadro. 1419.
- , *A.* Aktivität der Gegenionen in kolloiden Lösungen. 2096.
- Dobry-Duclaux, A.* Elektroviskoser Effekt 2097.
- Dodd, C.* Radio-carbon content and delayed boiling of liquids. 1119.
- , *J. N. s. Bogle, G. S.* 1612.
- , *Luurence Ellsworth.* Old-time classroom recitation: can it be restored? 1919.
- Dodds, W. S. s. Landsbaum, E. M.* 1118.
- Dodero, M.* Corrosion cathodique du fer et la formation anodique de ferrite cristallisé par électrolyse de la soude fondue. 835.
- Préparation d'alliages silicium-titane par électrolyse ignée. 2487.
- Dodsworth, P. G. and Barrow, R. F.* Triple band systems of aluminium monofluoride. 254.
- Dodt, E.* Thermoelastische Eigenschaften der Nerven. 1078.
- Döhler, Oskar and Kleen, Werner.* Einfluß der Plasmaschwingung in Laufzeitröhren. 1251.
- **Döring, Werner.* Quantenmechanik. 181.
- Doerner, R. K. and Weber, A. H.* Internal conversion coefficients of Tl^{203} (parent, Hg^{203}). 1372.
- Dörr, J.* Schmiermitteldruck und Randverformung des Rollenlagers. 918.
- Doeschner, Russell N. s. Elverum jr., Gerard W.* 2287.
- **Doetsch, G.* Handbuch der Laplace-Transformation. II. Anwendung der Laplace-Transformation. 1. Abteilung. 1705.
- Doggett, John A. s. Berger, Martin J.* 388.
- , *W. O. s. Mead, S. W.* 1548.
- , *s. Petroff, M. D.* 1547.
- Dognon, A. et Simonot, Mlle Y.* Importance de diverses conditions expérimentales dans l'action des ultra-sons. 209.
- , — Cavitation et hémolyse par ultra-sons de fréquences différentes. 697.
- Doidge, P. R.* Transition to superconductivity. 1428.
- Dolbear, D. W. N. and Elliot, H.* Cosmic rays and the magnetic field of the sun. 2047.
- Dole, Malcolm s. Marx, Paul.* 2437.
- Dolega, U.* Einfluß einer Feldinhomogenität auf die Form des Kernabsorptions-signalen. 2457.
- Dollfus, Audouin.* Largeur de la raie 6374 Å et la température de la couronne solaire. 518.
- Domanski, B. s. Eyraud, Ch.* 1841.
- Domb, C. and Sykes, M. F.* High temperature expansions in the Heisenberg theory of ferromagnetism. 2104.
- *s. Barron, T. H. K.* 1193.
- Dombrowski, K. F.* Vereinfachte Berechnung von Transformatoren kleiner Leistung für automatische Schaltungen. 2503.
- , *N., Fraser, R. P. and Peck, G. T.* Short duration, double-flash system for simultaneous or delayed operation. 315.
- Dome, R. B.* NTSC color-TV synchronizing signal. 490.
- Domenicali, C. A. and Otter, F. A.* Thermoelectric power and electron scattering in metal alloys. 844.
- Domm, Ulrich and Foettinger, Hermann.* Stability of vortex streets with consideration of the diffusion of the vorticity of the individual vortices. 915.
- Donaldson, D. M. et Miller, N.* Etudes quantitatives des réactions radiochimiques. III. Oxydation du sulfate ferreux par les particules β . 612.
- , *Robert E. and Bradner, Hugh.* Asymmetry in p-n and p-p scattering from targets bombardé with 285-MeV polarized protons. 1377.
- *s. Bradner, Hugh.* 1589.
- Doncov, Ju. P. s. Striganov, A. R.* 1805.
- Donnet, J. B.* Validité des lois fondamentales de la diffusion brownienne de translation et de rotation, de la viscosité et de la sédimentation des particules rigides de petites dimensions, en solution infiniment diluée. 2450.
- Donohue, Jerry and Trueblood, Kenneth N.* Crystal structure of hydroxy-L-proline. I. Three-dimensional Patterson function. 1005.
- , — II. Determination and description of the structure. 1005.
- *s. Corey, Robert B.* 2067.
- *s. Vaughan, Philip.* 1005.

- Donovan, B.* Hall effect in metals at high frequencies. 648.
- *Lidiard, A. B.* and *March, N. H.* Spin paramagnetism of a free electron gas. II. 9.
- Doorn, van C. Z.* Temperature dependence of the energy-gap in ZnS. 329.
- Dorfner, Karl-Richard.* Tieftemperatur-Lumineszenz von Silberbromid mit Zusatz von Silbersulfid. 2537.
- Dorgelo, E. G.* Hochleistungssenderöhren mit Kathode aus thoriertem Wolfram. 1454.
- Dorn, Dieter.* Elektronen-Defektelektronen-Wechselwirkung in nicht-polaren Halbleitern. 2467.
- Dorneich, M.* s. *Thoraeus, R.* 1693.
- Dorner, Stefan.* s. *Gebhardt, Erich.* 2545.
- Dornfeld, E. G.* s. *Picard, R. G.* 1004.
- Dorsch, Dieter s. Krempel, Hans.* 858.
- , *Heinrich und Erche, Manfred.* Wiederkehrende Spannung beim Unterbrechen von Kurzschlüssen. 2175.
- Dorsten, van A. C.* Medium power 75-kv electron microscope of simplified construction. 1069.
- Emission electron microscopy. 2206.
- en *Spaa, J. H.* Hoogspanningsgenerator in druktank voor neutronen-productie. 2346.
- Dosch, F. P. s. Fischer, J.* 1960.
- * *Dosse, Joachim.* Transistor. Verstärkerelement. 1437.
- Douce, John L. s. West, John C.* 1667.
- Doucet, Y.* Courbes cryométriques. 215.
- Dissociation électrolytique de l'alumine en solution dans la cryolithe fondue. 2152.
- et *Bizouard, M.* Comparaison critique des méthodes cryométriques. 550.
- Calcul de l'abaissement du point de congélation d'une solution aqueuse d'un électrolyte partiellement ionisé. 1742.
- *LeDuc, J.-Adrien et Pannetier, Guy.* Comportement idéal des solutions d'électrolytes dans le nitrate d'argent fondu. 2321.
- Dougherty, E. L. s. Rutherford, W. M.* 1514.
- s. *Saxton, R. L.* 1199.
- Dougherty, T. F. s. Cochran, George W.* 2223.
- Douglas, A. E.* Spectroscopic studies of simple molecules. 996.
- Douglas, A. E.* Spectrum of the Si₂ molecule. 2411.
- and *Moller, C. K.* Predissociations of the C¹²O and C¹³O molecules. 625.
- s. *Clusius, K.* 256.
- , *H. W.* and *Walker, R. A.* Electrokinetic behaviour of Iceland spar against aqueous electrolyte solutions. 2097.
- , *R. A. Broer, J. W.* and *Chiba, Ren.* C¹⁴ + d reactions. 1353.
- s. *Chiba, Ren.* 1353.
- s. *Galonsky, A.* 959.
- s. *Herring, D. F.* 2388.
- s. *Jones, K. W.* 958.
- Doumerc, J. s. Kohn, A.* 1983.
- Dousmanis, G. C.* Magnetic hyperfine effects and electronic structure of NO. 1615.
- *Sanders, jr. T. M.* and *Townes, C. H.* Microwave spectra of the free radicals OH and OD. 1621.
- Magnetic hyperfine effects and electronic structure of NO. 1615.
- Douzou, Pierre s. Lefort, Marc.* 2533.
- Dowben, Robert M.* and *Rose, Jerzy E.* Metal-filled microelectrode. 2142.
- Dowling, J. M.* Normal coordinate treatment for the out-of-plane vibrations of ethylene type molecules. 1816.
- s. *Meister, A. G.* 1816.
- and *Meister, Arnold G.* Substituted methanes. XX. Potential constants and calculated thermodynamic properties for some dibromomethanes. 1109.
- Downie, A. R. s. Barrow, R. F.* 1190.
- Downing, A. L. s. Truesdale, G. A.* 216.
- Downs, B. W.* Variation calculation of the polarizability of the deuteron. 945.
- Polarizability of the deuteron. 945.
- Effects of short-range correlations between two protons in elastic scattering of high-energy electrons by heavy nuclei. 1600.
- *Ravenhall, D. G.* and *Yennie, D. R.* Electric quadrupole effects in scattering of high-energy electrons by heavy nuclei. 608.
- s. *Yennie, D. R.* 600.
- , *J. W. s. Kurbatov, J. D.* 1779.
- Doyen, Jacqueline, s. Lagasse, Alphonse.* 1536.
- Doyle, W. T.* and *Robbins, A. B.* N¹⁴ (α, n) F¹⁷ and Na²³ (α, n) Al²⁶ reactions. 1542.

- Doyle, W. T. s. Quinton, A. R. 2012.
- Drachman, R. J. and Peaslee, D. C. Isotopic spin factors in nuclear reactions. 51.
- Dracott, D. s. Gabor, D. 1657.
- Draganic, Ivan. Action des rayonnements ionisants sur les solutions aqueuses d'acide oxalique. 613.
- Dragesco, J. Traitement anti-reflets en microscopie. 2521.
- Drahowzal, F. s. König, H. 1114.
- Dranen, van Johan. Critical point and the phase rule. 1113.
- Born repulsion and restricted free rotation. 2407.
- Drescher, M. und Müller, E. W. Bestimmung der Polarisierbarkeit von Atomen und Molekülen mit dem Feldelektronenmikroskop. 2048.
- Dreesen, G. s. Kortüm, G. 380.
- Dreicer, H. and Allis, W. P. Inclusion of Coulomb interactions in the Boltzmann equation. 1048.
- Drell, S. D. Nuclear radius and nuclear forces. 188.
- Nuclear radius and nuclear forces. 1764.
- and Huang, Kerson. Proton bremsstrahlung. 1589.
- and Verlet, L. Multiplescattering corrections in π^+ deuteron scattering. 1386.
- Drenick, R. F. s. Benner, A. H. 1672.
- Drenig, M. Errichtung von Hochspannungs-Innenanlagen unter Beachtung der Betriebsvorschriften des VDE. 2503.
- Drescher-Kaden, F. K. und Böttcher, G. Erzwungene Ionenbewegungen einwertiger Metalle im Quarz. 1828.
- Dresden, M. Collective description of an electron gas. 1720.
- Dresel, H. s. Sommermeyer, K. 93, 1392.
- Dresner, J. Rapid method of positioning for rotation therapy. 346.
- Optimum physical factors for rotation X-ray therapy. 346.
- s. Friedman, Milton. 1906.
- Dresselhaus, G., Kip, A. F. and Kittel, C. Cyclotron resonance of electrons and holes in silicon and germanium crystals. 822.
- — Plasma resonance in semiconductor crystals. 1653.
- — and Wagoner, G. Cyclotron and spin resonance in indium antimonide. 823.
- Dresselhaus, G., Kip, A. F., Ku, Han-Ying, Wagoner, G. and Christian, Schuyler M. Cyclotron resonance in Ge-Si alloys. 1860.
- s. s. Dexter, R. N. 1857.
- Dressler, K. Identifizierung von Bandenspektren ionisierter Moleküle. 624.
- Ultraviolett- und Schumannspektren der neutralen und ionisierten Moleküle PO, PS, NS, P₂. 624.
- Dreuer, R. W. P. s. Moljk, A. 1124.
- Drews, G. Vorschriften für Leuchtröhrenanlagen und Leuchtröhrengeräte mit Spannungen von 1 kV und darüber. 2532.
- Drexler, G. und Voss, H. H. Mehrkreisige Bandpaßfilter mit optimaler Annäherung an die ideale Rechteckform der Durchlaßkurve. 2183.
- Dreyfus-Alain, Bertrand et Viillard, Rodolphe. Organisation réticulaire du méthanol cristallisé entre 159 et 175° K. 105.
- Drickamer, H. G. s. Emery, A. H. 1201.
- s. Rutherford, W. M. 1198, 1514.
- s. Saxton, R. L. 1199, 1613.
- s. Timmerhaus, K. D. 227.
- Driscoll, Raymons L. Determination of current in absolute measure. 1301.
- Dröge, F. Radiosternwarte Kiel. 174.
- s. Priester, W. 174.
- Drösch, Gerhard. Anlage zur Impulsregenerierung bei Fernsehsignalen. 1453.
- Drokin, A. I. Kontrollverfahren für Kompensation des Erdmagnetfeldes bei Untersuchungen mit einem vertikalen astatischen Magnetometer. 274.
- Dropesky, B. J. and Schardt, A. W. Decay of neon²⁴. 1158.
- Droppin, Herbert A. s. Kalmus, Henry P. 918.
- , J. J. s. Watson, W. R. 1071.
- Drosd, Ralph D. Gated multiple light pulse generator. 1257.
- Drossbach, Paul. Kenntnis der Elektrolyse geschmolzener Salze. 666.
- Elektrolyse geschmolzener Fluoride und Doppelfluoride. 835.
- Impedanzmessungen an Kohlelektroden in geschmolzenen Salzen und wäßrigen Lösungen. 2144.
- Abscheidung von Silber und Mangan aus geschmolzenen Salzmischungen. 2159.

- Drost-Hansen, W. and Neill, H. W.* Temperature anomalies in the properties of liquid water. 1828.
- Drougard, M. E., Funk, H. L. and Young, D. R.* Dielectric constant and loss measurements on barium titanate single crystals while traversing the hysteresis loop. 2496.
- *Landauer, R. and Young, D. R.* Dielectric behavior of barium titanate in the paraelectric state. 1239.
- *s. Huibregtse, E. J.* 1239.
- Drubba, H. s. Rudorff, D. W.* 2549.
- Drunkheller, Carl E.* Anomalous thermal transition in the infrared optical properties of evaporated bismuth films. 1635.
- Drummond, D. G.* Summarized proceedings of a conference on the optical and electron-microscopical properties of textile fibres-Manchester, October 1952. 1919.
- , *J. E.* Masses of light nuclei. 401.
- and *Wilcox, L.* Oscillations of a plasma with a skew velocity distribution transverse to a static magnetic field. 1047.
- , — Resonant power transfer within a plasma in a magnetic field. 1050.
- *s. Wilcox, L.* 671.
- Dryden, J. S., Meakins, R. J., Davies, M. and Price, A. H.* Absence of radio frequency resonance absorption in triethylamine. 2108.
- Dsherpelov, Ch. A. und Patssjuk, G. M.* Untersuchung der Hochfrequenzentladung nach der Sondenmethode. 298.
- Dubin, Maurice.* Index of refraction above 20,000 feet. 530.
- Duboc, Charles A.* Theory of silver-halide photolysis. 1257.
- Dubout, P. s. Nickson, A. F. B.* 2305.
- Duch, E. und Küchler, L.* Molgewichtsbestimmungen bei höheren Temperaturen. 1838.
- Duchesne, Jules.* Nuclear quadrupole coupling constants and molecular vibrations. 435.
- and *Burnelle, Louis.* Ground and excited electronic states and molecular vibrations of some polyatomic molecules. 622.
- and *Monfils, André.* Pure quadrupole spectrum of solid hexachlorobenzene and its interpretation. 1422.
- Duckworth, Henry E., Hogg, Benjamin G. and Pennington, Edwin M.* Mass spectroscopic atomic mass differences. 764.
- *s. Hogg, Benjamin G.* 567.
- *s. Kerr, John T.* 947.
- , *J. C. Merrison, A. W. and Whittaker, A.* High-efficiency neutron detector. 1982.
- Duclaux, Jacques.* Théorie des gaz. XVI. Courbe de base et courbes dérivées. État du gaz aux températures élevées. 214.
- et *Cohn, Charlotte.* Osmose. II. 1742.
- Dudley, Robert A.* Photographic detection and dosimetry of beta rays. 2558.
- Dudzak, Walter, Sagane, Ryokichi and Vedder, James.* Photomeson production from H, D and C. 1342.
- *s. Sagane, Ryokichi.* 1342.
- Düker, H. s. Herchenbach, W.* 2536.
- *s. Möllenstedt, G.* 164.
- Duerden, T. and Hyams, B. D.* Heavy particle selector. 2343.
- Duerr, Hans-Peter and Teller, Edward.* Interaction of antiprotons with nuclear fields. 1529.
- Dufay, Jean s. Cabannes, Jean.* 1911.
- *s. Dufay, Maurice.* 1284.
- , *Maurice et Dufay, Jean.* Etude du spectre du ciel nocturne dans le violet et le proche ultraviolet. 1284.
- Duff, R. E., Knight, H. T. and Wright, H. R.* Detonation properties of acetylene gas. 926.
- Duffield, R. B., Bunker, M. E., Mize, J. P. and Starner, J. W.* Decay of Cs¹³⁸. 964.
- *s. Timmerhaus, K. D.* 227.
- Duffieux, P. Michel.* Condition d'Abbe et les transmissions optiques réversibles. 320.
- Dualisme onde-corpuscule et la cohérence. 537.
- Théorie de l'information et le monde en expansion. 1909.
- *s. Linfoot, E. H.* 2199.
- Duffus, H. J.* Geomagnetic micropulsations. 1910.
- *s. Cooke, A. H.* 1424.
- Dufour, Ch.* Contrôles simplifiés de la sensibilité spectrale des photocathodes. 1059.
- *H. M.* Extension de la méthode des moindres carrés. Modification des résultats compensés par adjonction d'observations nouvelles. Étude des observations corrélées. 1096.

- Dugas, René.* Interprétation de la mécanique quantique à l'aide de variables cachées au sens de M. David Bohm. 1926.
- Dugdale, J. S. and MacDonald, D. K. C.* Lattice thermal conductivity. 1110.
- *s. Chester, P. F.* 28.
- Duhme, Rolf.* Anwendung der Wechsellichtmethode in der Kernphysik. 1981.
- Duimio, F., Gulmanelli, P. e Scotti, A.* Semplice deduzione delle equazioni di Low dal formalismo di Lehmann-Symanzik-Zimmermann. 720.
- *s. Diana, E.* 562.
- Generalizzazione della dinamica relativistica della particella. 1709.
- Duke, Frederick R. and Laity, Richard W.* Measurement of transport numbers in pure fused salts. 1656.
- , *P. J., Lock, W. O., March, P. V., Gibson, W. M., McKeague, R., Hughes, I. S. and Muirhead, H.* Proton-proton aelastic scattering at 950 Mev. 774.
- Dukes, J. M. C.* Waveguides and waveguide junctions. Geometrical analysis of their properties. 1247.
- Duller, N. M. and Walker, W. D.* High-energy meson production. 426.
- Dumas, Guy s. Bayet, Michel.* 542.
- Dumitru, T. E. s. Cragg, L. H.* 267.
- Dumke, H.* Definitionen und Zusammenhänge verschiedener Maße für die nichtlineare Verzerrung. 301.
- , *William P.* Generalized deformation potential theory for n-type Ge. 129.
- Deformation potential theory for n-type Ge. 1652.
- , *William s. Blount, Eugene.* 1652.
- DuMond, J. W. M. s. Murray, J. J.* 577, 586.
- Dumontet, P.* Correspondance objetimage en optique. 860.
- Duncan, J. F. and Lister, B. A. J.* Ion exchange studies. II. Determination of thermodynamic equilibrium constants. 382.
- , *N. E. and Janz, G. J.* Thermal dimerization of butadiene, and the equilibrium between butadiene and vinylcyclohexene. 2327.
- Dungey, J. W.* Theoretical model for arches in the solar corona. 350.
- Attenuation of Alfvén waves. 466.
- Dunkelman, L.* Solar-blind ultraviolet multiplier phototubes. 1675.
- Dunkle, Robert V. s. Gier, Joseph T.* 1885.
- Dunlap, R. D. s. Brackett, T. E.* 106.
- , *jr. W. C.* Germanium diodes from spherical pellets. 1228.
- Sphel as an acceptor in germanium. 1858.
- Gold, amphoteric impurity element in germanium. 2123.
- *Bohm, H. V. and Mahon, jr. H. P.* Diffusion of impurities in silicon. 1027.
- Dunlop, Peter J. and Gosting, Louis J.* Interacting flows in liquid diffusion: Expressions for the solute concentration curves in free diffusion, and their use in interpreting Gouy diffusionometer data for aqueous three-component systems. 2429.
- *s. Baldwin, Robert L.* 1632.
- Dunn, G. H. s. Burch, D. S.* 1048.
- Dunnam, F. E. s. Ralph, D. C.* 972.
- Dunning, K. L. s. Bergstrahl, T. A.* 389.
- *s. Fagg, L. W.* 2026.
- Dunoyer, J. M.* Formules nouvelles sur la sedimentation. 1843.,
- Dunsnuir, R. s. Linhart, J. G.* 848.
- DuPre, E. F. s. O'Connor, R. T.* 2410.
- Dupree, T. H. s. Burkhardt, J. L.* 2015.
- Durán, A. y Casas, J.* Metodos para el contraste de fabricación de superficies cuadradas. 311.
- , — Estudio teorico de los sistemas opticos con cuadradas de revolucion centradas. 496.
- , — Proyectos de maquinas para el tallado de las cuadradas de revolucion por medio de utiles planos. 689.
- , — Métodos para el contraste de fabricación de superficies cuadradas. 896.
- Durand, E. s. Bergstrahl, T. A.* 389.
- Identité conduisant à la solution du problème de Kirchhoff pour les ondes amorties. 2281.
- , *H. s. Ambler, E.* 2008.
- Durif, A. s. Bertaut, E.-F.* 1810.
- Durr, Rene L. s. Skau, Evald L.* 1939.
- Durrant, N. F.* Measurement of minority carrier lifetimes in semiconductors. 133.
- * *Duschek, Adalbert und Hochrainer, August.* Tensorrechnung in analytischer Darstellung. III. Anwendung in Physik und Technik. 534.
- Dushman, Saul.* New chemical elements. 1971.
- Duskova, Alena s. Bohun, Antonin.* 149.

- Dutra, C. V. and Murata, K. J.* Spectrochemical determination of thorium in monazite by the powder d. c. arc technique. 503.
- Dutt, M. N.* Laue reflections of tetraphenylethylene crystal. 105.
- Dutta, M.* Calculation of the activity-coefficient. 2152.
- Essential statistical approach to thermodynamic problem. II. 2333.
- Dutton, David.* Localized photoconductivity in PbS films. 1226.
- , *J. s. Crompton, R. W.* 1231, 2490.
- Duwall, G. E.* Linearized flow theory and shock waves in metals. 1732.
- Duyckaerts, G.* Analyse quantitative par les spectres d'absorption infrarouge des poudres. 859.
- *s. Posner, A. S.* 873.
- Dwight, C. Harrison.* Specialized physics. 1919.
- Dworkin, A. S., Sasmor, D. J. and Artsdalen, van E. R.* Thermodynamics of boron nitride; lowtemperature heat capacity and entropy; heats of combustion and formation. 1109.
- Dyba, R. V., Lane, C. T. and Blakewood, C. H.* Film flow and bulk formation of helium II in capillaries. 448.
- Dyce, R. B.* Auroral echoes observed north of the auroral zone on 51.9 mc/sec. 2242.
- Dye, David L.* Momentum spectrum from scattering in lead of sea level penetrating shower secondaries. 1802.
- Dyer, H. B. and Wedepohl, P. T.* Electrical measurements on type IIb diamonds. 1861.
- *s. Clark, C. D.* 1408.
- , *R. F. s. Bacon, G. E.* 1326.
- Dyke, van Karl S.* Vibrations of a quartz plate. 1017.
- , *W. P.* Electron emission at high fields. 1052.
- , *W. P. s. Trolan, J. K.* 1052.
- Dymott, E. R. s. Bane, W. T.* 211.
- Dyson, F. J. and Überall, H.* Anisotropy of bremsstrahlung and pair production in single crystals. 1799.
- Second maximum in the negative pion scattering cross section. 1386.
- , *J.* Interferometer for straightness measurement. 194.
- Interferometer microscope for opaque objects. 2521.
- Dzrubas, W. s. Aten, A. H. W. jr.* 2024.
- Dželepov, V. P., Kazarinov, Ju. M., Golovin, B. M., Fljagin, V. B. and Satarov, V. I.* Experimental investigation of neutron-nucleon and neutron-deuteron interaction in the energy region 380—590 MeV. 1798.
- Dzimianski, J. W. and Jones, T. B.* Characteristics of the high-current argon arc. 2166.
- Dziergwa, H. und Panke, H.* Gelbe Lumineszenz durch Titan in fluoridhaltigem Magnesiumsilikat. 499.
- Dzung, L. S.* Stabilitätskriterium nach Nyquist. 195.
- Thermostatische Zustandsänderungen des trockenen und des nassen Dampfes. 1118.
- Dzurus, M. s. Hennig, G.* 133.

E

- Eades, R. G.* Nuclear magnetic resonance spectrum of Al²⁷ in euclase. 647.
- Nuclear resonance absorption spectrum of Al²⁷ in a single crystal of euclase. 2107.
- Eagleson, D. Alan.* Spectrograph in forensic science. 505.
- Eakins, G. W. s. Day, M. C. jr.* 1568.
- Earl, James A.* Pump for circulating pure gases. 1935.
- Eason, G. Fulton, J. and Sneddon, I. N.* Generation of waves in an infinite elastic solid by variable body forces. 911.
- Eastbrook, J. N. and Wilson, A. J. C.* Diffraction of X-rays by distorted-crystal aggregates. III. Interpretation of the Fourier coefficients. 2416.
- Easterday, H. s. Imhof, William.* 1759.
- Ebel, M. E. and Hull, jr. M. H.* Phase shifts for relativistic corrections in high-energy p-p scattering. 1591.
- *s. Breit, G.* 1569.
- Eberhagen, A.* Quantitative Untersuchung der Lenardschen Hohlflammen. 752.
- Eberhard, Philippe.* Détecteur à neutrons de 0.5 à 6 MeV de sensibilité uniforme en fonction de l'énergie. 2338.
- *Geiss, J. Lang, C. Herr, W. und Merz, E.* Zerfall von ¹⁸⁰Ta. 569.
- Eberhardt, P. Geiss, J. Lang, C. Herr, W. und Merz, E.* Zerfall von ¹⁸⁰Ta. 569.
- , *W. H. Crawford jr. Bryce and Lipscomb, William.* Valence structure of the boron hydrides. 1615.

- Ebers, J. J. and Moll, J. L.* Large-signal behavior of junction transistors. 2138.
- Ebert, Fritz.* Rotationsdiagramme, ein neues Anwendungsgebiet des Zählrohrgoniometers. 1895.
- Untersuchungen mit Hilfe eines Drehaufsatzes am Zählrohr-Goniometer. 2064.
- , *Hermann.* Beherrschung des Schrifttums. Beitrag zur Dokumentation I.
- , *Rolf.* Verdichtung von HI-Gebieten. 177.
- , *Theodore E. s. Angello, Stephen J.* 1857
- Eby, Denise s. Griffing, Virginia.* 1102.
- , *F. S.* Angular distribution of protons from (d, p) reactions on Be^9 , N^{14} and Zn^{68} . 419.
- Eckart, Gottfried.* UKW-Schwund und seine Analyse. 2176.
- Ecker, G.* Periodische Erscheinungen bei der Metallablösung an der Oberfläche von Mehrstoffsystemen. 1680.
- Messung der Temperaturverteilung im Innern eines wandstabilisierten Bogens mit Hilfe des radioaktiven Quecksilberisotopes 203 Hg. 1659.
- Eckert, Franz.* Partialdrücke des Naphthalins. 1962.
- Eccles, P. J. s. Officer, V. C.* 1178, 1389.
- Eccleshall, D. s. Collinge, B.* 1322.
- Eckardt, A.* Einfluß von Restionen bei Einzelnachweisprozessen. 1274.
- und *Nitzsche, K.* Ausleuchteffekt langsam abklingender Phosphore im Ultraschallfeld. 1261.
- Eckart, F.* Elektrostatische Hochspannungsgeneratoren für mittlere Spannungen (20—100 kV). 1053.
- Entwicklung von Bildwandlern und Bildverstärkern. 1251.
- Ecker, G.* Bedeutung der elektrodischen Emissionsprozesse im Rahmen der Kontraktionstheorie. 837.
- Influence of electron emission on the cathode processes of the arc. 1049.
- Eckhardt, Dieter.* Dissoziation von Wasserstoffmolekülkanalstrahlen in Wasserstoff. 1392.
- Eckstein, Brigitte.* Optische Untersuchung von Fehlordnungserscheinungen an Quarz. 2070.
- Edeleanu, C. and Evans, U. R.* Causes of the localized character of corrosion on aluminum. 2220.
- Edelman, Seymour s. Jones, Earle.* 2303.
- Edelmann, K.* Molekulargewicht und Uneinheitlichkeit von Hochpolymeren aus rheologischen Messungen. 2081.
- Edelsack, E. A. and Kreger, W. E.* Thick target bremsstrahlung spectra for 1.00—1.50—, and 2.00-Mev electrons. 2039.
- Eden, R. J.* Nuclear saturation: generalized Hartree-Fock method. 1095.
- and *Francis, N. C.* Theory of nuclear models. 539.
- — Nuclear models. 1346.
- s. *Brueckner, K. A.* 1350, 1786.
- Eder, G.* Photonvielfacherzeugung. 1716.
- Zerfall eines gebundenen Λ^0 -Teilchens. 1753.
- Bindungszustände zwischen Nukleonen und Antinukleonen. 1930.
- Edge, R. D. s. Shire, E. S.* 767.
- , *W. L.* Line geometry in three dimensions over $\text{GF}(3)$, and allied geometry of quadrics in four and five dimensions. 1091.
- Edmister, Wayne C. and Ruby, Charles L.* Generalized activity coefficients of hydrocarbon mixture components. 751.
- Edmond, J. T. s. Barrie, R.* 1033.
- Edmondson, D.* Electrical and magnetic measurements in an electrical engineering factory. 273.
- Edwards, D. A. and Moyal, J. E.* Stochastic differential equations. 219.
- , *D. O. s. Brewer, D. F.* 632, 1723.
- , *G.* Vapour pressure of 2:4:6-trinitrotoluene. 28.
- Isotopic composition of meteoritic hydrogen. 1482.
- , *Gerald, A. and Goldfinger, George.* Influence of a magnetic field on the viscosity of polyphenyl. 456.
- , *M. H. s. Atkins, K. R.* 634.
- , *Palmer L.* Magnetic properties of murchieite, Cu_8PbO_8 . 1019.
- , *S. F.* Nucleon Green function in pseudoscalar meson theory. I. II. 1299.
- , *W. D.* High values for the electrical breakdown strength of liquids. 482.
- Ejremov, N.* Approximate calculation of atomic radii. 993.
- Role of the *Rydberg* constant in the calculation of ionic radii. 993.
- Egan, jr. E. P. and Luff, B. B.* Density of aqueous solutions of phosphoric acid. Measurements at 15° to 80 °C. 1938.

- Egedal, J. and Ambolt, N. Effect on geomagnetism of the solar eclipse of 30 June 1954. 1910.
- Egerton, Sir Alfred s. Badami, G. N. 925.
- Eggen, D. T. and Kenworthy, H. NAA statitron as a facility for solid-state research. 610.
- egger, Alois. Widerstandsmessung mit der Meßverzweigung. 1419.
- , H. Anwendung des Prinzips der virtuellen Verschiebungen auf die Ermittlung von Gleichgewichtslagen. 1731.
- Eggers, J. und Frieser, H. Reaktionsverlauf bei der Farbkupplung von p-Aminodimethylanilin. 1964.
- Eggert, J. und Wartburg, von R. Sensitometer für Serienbestimmungen des Schwarzschildeffektes (Reziprozitätsfehlers) im weiten Bereichen. 163.
- Fritz Gajewski zur Vollendung seines siebzigsten Lebensjahres, 13. Oktober 1955. 894.
- Lothar Hock. Zur Vollendung seines fünfundsechzigsten Lebensjahres am 12. November 1955. 894.
- Eggleston, R. R. Cold work studies on copper at low temperatures. 2542.
- s. Meechan, C. J. 467.
- Eggleton, A. E. J. Tompkins, F. C. and Wanford, D. W. B. Measurement of the thermal accommodation coefficients of gases. 2090.
- Eguchi, Tetsuo. Anomalous τ -meson decay. 1336.
- Radiative π -e decay. 2354.
- Ehler, A. W. and Weissler, G. L. Absorption of radiation in the vacuum ultraviolet by N atoms produced in a discharge plasma in nitrogen. 1048.
- Ehlers, Jürgen. Theorie der statischen Vakuumfelder in der klassischen und der erweiterten relativistischen Gravitationstheorie. 1293.
- Ehrenreich, H. and Overhauser, A. W. Mobility of holes in Si and Ge. 2122.
- Ehrenberg, H. Fr. Isotopenanalysen an Blei aus Mineralen. 2359.
- , Geiss, J. and Taubert, R. Massenspektrometer hoher Genauigkeit für Blei-Isotope. 37.
- , Lars and Andersson, Göran. Probable side-effect of nuclear reactions in the biological action of fast protons. 2558.
- Ehret, R. J. Hochschild, E. F. Embree, J. M. and Grogan, E. C. Transfer function measuring and recording system. 544.
- Ehrlicke, Krafft A. Descent of winged orbital vehicles. 1106.
- Ehrlich, Margarete and Fitch, Stephen H. Photographic X- and gamma-ray dosimetry. 2227.
- , Paul. Calculation of dielectric loss from dielectric dispersion for polar polymers. 2169.
- and de Lollis, Nicholas. Dielectric relaxation in a styrene-acrylonitrile copolymer during and after its polymerization. 2085.
- Ehrman, J. B. s. Breit, G. 81, 414.
- Eichborn, von Johann-Ludwig. Strömungsprobleme bei Aerosolen und Aerosolpartikeln, V. Sedimentationsströmungen von Rauchen und Nebeln. 2450.
- Eichelberger, J. F. Jordan, K. C. Orr, S. R. and Parks, J. R. Calorimetric determination of the half-life of polonium-210. 1769.
- Eichhoff, H. J. und Picard, K. Kapillarelektrode aus Metall zur direkten spektrochemischen Untersuchung von Lösungen. 2195.
- Eichholz, G. G. Haeffner effect in mercury. 1535.
- Rosenblum spark counter. 1981.
- Eichler, E. s. Lazar, N. H. 1572.
- s. O'Kelley, G. D. 2023.
- , G. Schaltungstechnischer Aufbau von Umkehrschützen. 2504.
- Eigen, M. Theorie der Wärmeleitfähigkeit wäßriger Elektrolytlösungen. 137.
- und de Maeyer, L. Kinetik der Neutralisation. I. 1041.
- und Schoen, J. Stoßspannungsverfahren zur Untersuchung sehr schnell verlaufender Ionenreaktionen in wässriger Lösung. 654.
- s. Wicke, E. 2140, 2481.
- Eilenberg, S. L. s. Orear, Jay. 423.
- Einbinder, Harvey. Expansion of two-dimensional wave fields in powers of $1/c$. 363.
- Einhorn, H. D. and Cohen, A. E. Z. Stray light in a spectrophotometer caused by internal reflection in a 60° prism. 492.
- Einstein, Albert. 1089.
- Einstein, Albert — * Ulm, 14. März 1879
† Princeton, N. J., 18. April 1955.
1290.

- Einstein* (1879—1955). 1706.
— 75 Jahre. 2254.
- Eipeltaufer, E. und Jangg, G.* Beziehung zwischen Viskosität und Zusammensetzung binärer Natriumsilikatgläser. I. 1628, II. 1629.
- Eisberg, L. M. Fowler, W. B. Lean, R. M. Shephard, W. D. Shutt, R. P. Thorndike, A. M. and Whittemore, W. L.* π - p interactions at 1.4 Bev. 979
- , *R. M., Igo, G. and Wegner, H. E.* Protons from the bombardment of several elements with 40-Mev alpha particles. 1535.
- , —, — Elastic scattering of 40-Mev alpha particles from Al. 1796.
- , —, — Protons from the bombardment of several elements with 40-Mev alpha particles. 2033.
- *s. Igo, G.* 1167.
- *s. Palevsky, H.* 979, 1753.
- *s. Wegner, Harvey E.* 1587.
- Eischens, R. P. s. Mapes, J. E.* 216.
- Eisenberg, H. and Pouyet, J.* Viscosities of dilute aqueous solutions of a partially quaternized poly-4-vinylgridine at low gradients of flow. 265.
- *s. Katchalsky, A.* 453.
- , *Y.* Interaction of cosmic-radiation heavy primaries in lead. 988.
- Possible existence of a new hyperon. 1520.
- *Rosendorff, S. and Yeivin, Y.* Analysis of τ -meson events. 2001.
- Eisenkolb, Friedrich.* Einfluß von Beimengungen auf die Rekristallisationstemperatur des Eisens. 1690.
- Eisenschitz, R.* Principle of Carathéodory. 1111.
- Molekulartheorie der Ungleichgewichtszustände von Flüssigkeiten. 1968.
- Eisenstein, Albert S.* X-ray induced luminescence in MgO. 1070.
- , *J. C. s. McCrum, N. G.* 1198.
- Eisinger, J. T. s. Bonner, T.* 2011.
- *s. Cook, C. F.* 62.
- *s. Debs, R. J.* 55.
- *s. Gossett, C. R.* 962.
- *s. Halpern, I.* 55.
- Eisner, M.* Canonical transformations of the pseudo-vector field. 365.
- Ekhardt, E.* Jahresgang des Luftdrucks nach Breite und Höhe. 2252.
- Eckholm, R. Hallén, O. and Zelanders, T.* Sharpening of knives for ultramicrotomy. 873.
- Ekspog, A. G.* Energy loss of fast electrons. Absolute total cross-section for bremsstrahlung in nuclear research emulsions. 2393.
- Ekstein, H.* Unitarity of the U operator. 1296.
- Theory of time-dependent scattering for multichannel processes. 1586.
- and *Rostoker, Norman.* Quantum correction to the shot effect. 384.
- *s. Rostoker, Norman.* 384.
- , *Miriam G. s. Evans, H. T. jr.* 1002.
- Elbaum, C. and Chalmers, B.* Topography of solid-liquid interfaces of metal crystals growing from the melt. 1406.
- El Bedewi, F. A.* Magnetic analysis of the inelastically scattered deuterons and disintegration protons from the deuteron bombardment of fluorine. 1574.
- Elbein, I. I. M. McOmie, J. F. W. and Pollard, F. H.* Application to qualitative analysis of the separation of inorganic metallic compounds on filter paper by partition chromatography. 369.
- Elbert, Donna s. Chandrasekhar, S.* 351.
- Elder, Max E. s. Maron, Samuel H.* 2430.
- Eldert, Cornelius s. Rosen, Saul.* 1683.
- Eldredge, K. R. and Tabor, D.* Mechanism of rolling friction. I. Plastic range. 739
- Elenkova, N. s. Trifonov, A.* 2485.
- Elle, Dietrich.* Röntgenblitzrohr mit Kunststoffisolierung und einer Doppelanode. 1254.
- Ellenburg, Janus Y. s. Feldman, Cyrus.* 2204.
- Eller, von Gérard.* Lignes de niveau et représentation optique des séries de Fourier à deux dimensions. 795.
- Eller, von Mme Hélène.* Structure de colorants indigoides. I. Etude radio-cristallographique. Techniques et méthodes. 795.
- II. Structure cristalline du sélénindigo. 796.
- III. Structure cristalline de l'indigo. 796.
- IV. Structure cristalline du thioindigo. 796.
- V. Comparaison des structures de l'indigo, du thio-indigo et du sélénindigo. 796.
- Ellickson, R. T. s. Nelson, J. T.* 1979.
- Elling, W.* Bestimmung großer mechanischer Eingangsimpedanzen fester Körper im Frequenzband 50—3000 Hz. 1954.

- Ellinger, Joseph P. s. Fischer, Robert B. 29.
- Ellington, J. P. Flexural vibrations of an end-loaded vertical strip. 728.
- Elliot, H. s. Crawshaw, J. K. 1178.
- s. Dolbear, D. W. N. 2047.
- , J. O. Differential elastic scattering of 14-Mev neutrons. 1379.
- Differential elastic scattering of 14-Mev neutrons in Bi, Ta, In, Fe and S. 2392.
- s. Faust, W. R. 1379.
- Elliott, David s. Probst, Ronald F. 915.
- , J. P. Theoretical studies in nuclear structure. V. Matrix elements of non-central forces with an application to the 2p-shell. 1930.
- Electric monopole transitions in C^{12} and O^{16} . 2383.
- Long β -lifetime of ^{14}C and the ^{14}N spectrum. 2383.
- and Lane, A. M. Evidence for two-body spin-orbit forces in nuclei. 1299.
- and Skyrme, T. H. R. Centre-of-mass effects in the nuclear shell-model. 946.
- , K. W. T. s. Stone, N. W. B. 904.
- , L. G. Preston, M. A. and Wolfson, J. L. Spin and parity of 2.69 day Au^{198} . 2031.
- , Norman. Magnetic properties of some anhydrous chlorides. 124.
- s. Slowinski, Emil. 2066.
- , R. J. Theory of the effect of spin-orbit coupling on magnetic resonance in some semiconductors. 821.
- Spin-orbit coupling in band theory. Character tables for some double space groups. 821.
- Vibrations of a perturbed lattice. 1822.
- Theory of neutron scattering by conduction electrons in a metal and on the collective-electron model of a ferromagnet. 1846.
- Resistance anomalies in some rare-earth metals. 1851.
- Ellis, J. A. Gottlieb, M. B. and Meredith, L. H. Double Geiger-tube study of soft radiation at northern latitude. 249.
- , J. and Henderson, C. Nuclear scattering of electrons and positrons at 0.7 and 1.4 MeV. 245.
- , J. W. et Vanderberg, R. M. Absorption dans le proche infrarouge et la dispersion de la glace et d'autres cristaux. 261.
- Ellis, R. A. s. McDonald, F. B. 249.
- , jr. Ray C. Etching of single crystal germanium spheres. 2475.
- , R. E. and Schecter, Larry. Elastic scattering of 48-Mev alpha particles. 2388.
- s. Schecter, Larry. 1796.
- , jr. R. Hobart. Device for determining relative stopping powers for natural alpha particles. 416.
- Rossi, H. H. and Failla, G. Stopping power of water films. 415.
- , Robert A. High-altitude rocket measurements with scintillation counters at northern latitudes. 249.
- , Robert E. and Schecter, Larry. Elastic scattering of 48.2-Mev alpha particles. 1587.
- Ellison, C. H. s. Bergstrahl, T. A. 389.
- , Solon A. s. Morgan, Councilman. 2222.
- Ellyett, C. D. and Fraser, G. J. Influence of noise on radar meteor observations. 1481.
- and Roth, K. W. Radar determination of meteor showers in the southern hemisphere. 1697.
- El-Mofty, Osman and El-Nadi, Mohamed. Multiple meson production theories applied to cosmic-ray showers. 1390.
- Elmore, W. C. and Carrett, M. W. Measurement of two-dimensional fields. I. Theory. 117.
- El-Nadi, Mohameds. El-Mofty, Osman. 1390.
- Elsässer, Hans. Fraunhoferkorona und Zodiaklicht. 175.
- Räumliche Verteilung der Zodiakallichtmaterie. 350.
- Elschner, B. and Unangst, D. Bezirksstruktur dünner Eisenschichten. 1417.
- Elsken, R. H. s. Shaw, T. W. 121.
- Elsmore, B. and Whitfield, G. R. Lunar occultation of a radio star and the derivation of an upper limit for the density of the lunar atmosphere. 1481.
- El-Sum, Hussein M. A. and Baez, Albert V. Experiments on X-ray microscopy by reconstructed wave fronts. 1684.
- Eltermann, L. Stratospheric temperature profiles obtained with the searchlight technique. 530.
- Seasonal trends of temperature, density and pressure to 67.6 km obtained with the searchlight probing technique. 531.

- Elton, G. A. H. and Hirschler, F. G. Electroviscosity in dilute heterodisperse suspensions. 2097.
- , L. R. B. Effect of electron mass on high energy electron scattering. 89.
- Infinity in the second Born approximation for the Coulomb field. 721.
- Elverum, jr. Gerard W. and Doescher, Russell N. Physical properties of liquid fluorine. 2287.
- Elwert, Gerhard. Berechnung der Matrixelemente des Retardierungsfaktors mit Wasserstoffeigenfunktionen. 98.
- Elwyn, Alexander J. s. McFarland, Charles E. 1797.
- Elyash, L. J. s. Markovitz, H. 1629.
- s. Pollock, D. J. 2078.
- Emara, Sayeda H. s. Tolansky, S. 106.
- Embleton, T. F. W. Propagation and reflection of sound pulses of finite amplitude. 1736.
- Embree, J. M. s. Ehret, R. J. 544.
- Emeis, W. Wärmeleitzahlen von Metallen. 1920.
- Emeleus, K. G. Oscillations and fluctuations in gas discharges. 2491.
- Emelús, K. G. and Allen, T. K. Plasma electron oscillations. 1234.
- and Daly, N. R. Ion oscillations in a cathode potential minimum. 1234.
- Love, B. and Witherspoon, A. E. Striated positive column. 2492.
- s. Allen, T. K. 670.
- s. Daly, N. R. 481, 2488.
- s. Stewart, D. T. 781.
- Emerich, L. E. s. Broomell, G. L. 2258.
- Emersleben, O. Doppelperiodische Parallelströmung zäher Flüssigkeiten. 734.
- Emery, jr. A. H. Tung, L. H. and Drickamer, H. G. Effect of pressure on diffusion in polymer solutions. 1201.
- Emigh, C. R. Stereoscopic reprojection and radius of curvature measurements of cloudchamber tracks. 386.
- Emmerich, W. S. Neutron cross sections in the 4 Mev range. 1379.
- Emmerson, B. W. and Newbery, S. P. Portable β - γ radiation monitor. 1478.
- Emmett, P. H. s. Haldeman, R. G. 2446.
- s. MacIver, Donald S. 2448.
- Emmons, A. H. s. Lauderdale, R. A. 2230.
- s. Meinke, W. W. 2024.
- Emrick, R. J. s. Curtis, C. W. 16.
- and Peterson, Robert L. Pressure variation in shock tube flow. 916.
- s. Williams, Albert C. 916.
- Enatsu, Hiroshi. Mass spectrum of elementary particles. I. Eigenvalue problem in space-time. 899. II. 1297.
- Enault, Yves. s. Josse, Henri. 676.
- Enck, F. D. and Cooper, C. B. Elastic constants and specific heat of KCl at elevated temperatures. 729.
- Enderby, J. A. Electrical effects due to sound waves in colloidal suspensions. 810.
- Endt, P. M. and Paris, C. H. Photographic method for neutron velocity spectrography (II). 1981.
- deJong, D. Bogaardt, M. and Koudijs, B. Angular distributions of charged particles from nuclear reactions. 2012.
- Paris, C. H. Jongerius, H. M. and Valckx, F. P. G. Angular distributions of four proton groups from the $B^{10}(d, p)B^{11}$ reaction. 7012.
- s. Jong, D. de 2012.
- s. Jongerius, H. M. 2363.
- s. Koudijs, B. 2012.
- s. Paris, C. H. 951, 2372.
- Engel, A. von s. Bickerton, R. J. 2494.
- s. Francis, G. 2488.
- s. Robson, A. E. 672.
- , Philip M. and Bentley, George P. Stable flicker photometer for quantitative industrial control purposes. 2194.
- Engelbrecht, A. s. Javan, Ali. 785.
- Engelhardt, v. W. und Lübbers, H. Absolute Viskositätsmessungen mit einem Rotationsviskosimeter nach Couette-Hatschek 2285.
- Quantitative Phasenanalyse von Tönen mit Röntgenstrahlen. 2217.
- Engelkemeir, D. and Magnusson, L. B. Observation of a 193-millisecond metastable level in Pu^{239} . 1551.
- , D. W. s. Magnusson, L. B. 1160.
- Engelmann, Folker. Magnetische Untersuchungen zur Struktur der Cyclopentadien-Verbindungen der Übergangsmetalle. 2110.
- England, R. D. and Ogle, W. E. Betatron monitor and integrator. 935.
- Engell, H.-J. und Ilschner, B. Wechselstrom- und Impulsmessungen an passiven Eiselektroden. 659.
- Englman, R. and Sondheimer, E. H. Electrical conductivity of anisotropic thin films. 2092.
- English, W. N. s. Stewart, R. W. 2249.

- Ennulat, R.* Durch metallische Werkstoffe bedingte praktische Grenzen der elektrischen Meßtechnik. 1014.
- Durch metallische Werkstoffe bedingte praktische Grenzen der elektrischen Meßtechnik. 2102.
- Enoch, Jay M. s. Boynton, Robert M.* 698.
- Enz, Ch.* Ladungsträger-Suszeptibilität und Cyclotron-Resonanz von Germanium. 1431.
- , *Ulrich.* Erzeugung von Ultraschall mit Ferriten. 1957.
- Epelboin, I.* Etude des phénomènes anodiques au cours de la dissolution électrolytique des métaux. 666.
- Etude expérimentale du polissage électrolytique. 836.
- Teneur en eau des solutions de polissage électrolytique. 2162.
- , *Brouillet, Ph. et Froment, M.* Mesure de fortes tensions anodiques en solution concentrée. 1866.
- *s. Brouillet, Philippe.* 2487.
- Epheser, H. und Schlomka, T.* Flächengrößen und elektrodynamische Grenzbedingungen bei bewegten Körpern. 2263.
- Epp, E. R. s. Mauchel, G. A.* 1904.
- Eppler, Kurt.* Ultraschallabsorption in Flüssigkeitsmischungen. 1107.
- Epprecht, A. G.* Messen, Registrieren und Regeln mit dem *Epprecht*-Rotations-Viskosimeter. 1942.
- , *G. W.* Current fluctuation phenomena in current-carrying sliding contacts. 2499.
- und *Stäger, C.* Messung kleiner Reflexionen in Koaxial- und Hohlleitersystemen. Meßresultate an koaxialen Steckerpaaren. 1876.
- Eppstein, J. S. s. Batchelor, R.* 2038.
- Epstein, H. und Stram, O.* Magnetostrictive sonic delay line. 487.
- , *Leo F. and Roe, Glenn M.* Low temperature second virial coefficients for a 6—12 potential. 214.
- , *S. Strangeness.* 1716.
- *s. Juretschke, H. J.* 2112.
- , *Saul T.* Deriving *Schrödinger's* equation. 1295.
- Erard, H. R. s. Maloof, S. R.* 506.
- Erbring, H.* 16. Hauptversammlung. (3. Arbeitstagung seit Wiedergründung) der Kolloid-Gesellschaft am 19. und 20. September 1953 in Hamburg. 2257.
- Erche, Manfred s. Dorsch, Heinrich.* 2175.
- Ercoles, Anna Maria. Fiorentini, Adriana und Francia, di G. Toraldo.* Visual experiments with a vibrating test object. 2225.
- *Ronchi, Lucia und Francia, di G. Toraldo.* Relation between pupil efficiencies for small and extended pupils of entry. 2559.
- Erdey, L. Paulik, F. and Paulik, J.* Differential thermogravimetry. 213.
- Erdik, Enis.* Étude de la radioactivité α de l'atmosphère d'un laboratoire par des émulsions nucléaires. 1087.
- Erdman, K. L. Warren, J. B. James, D. B. and Alexander, T.* Gamma rays from Li^6 + p. 66.
- *s. Warren, J. B.* 66.
- Erdmann-Jesnitzer F. und Marx, L.* Reaktionsgeschwindigkeit metallische Phasen im Bereich allotroper Umwandlungen. 336.
- und *May, M.* Struktur von Kupfer-Feinstdrähten im Bereich von 0,15 bis 0,02 mm Durchmesser. 334.
- *s. Günther, F.* 1306.
- Erdős, P. Stoll, P. Wächter, M. and Wataghin, V.* Reaction ${}^7\text{Li}(\gamma, \alpha){}^3\text{H}$. 1360.
- *s. Bruijn, N. G. de.* 895.
- Ergang, R. und Welz, St.* Entstehung einer ausgeprägten Streckgrenze und von Fließfiguren bei Messing und Neusilber. 336.
- Erhard, K. H. L. and Norrish, R. G. W.* Studies of knock and antiknock by kinetic spectroscopy. 919.
- Erickson, J. H. s. Demorest, H. L.* 758.
- , *Roger D.* Minimum quenching times of low voltage, non-self-quenching Geiger counters. 929.
- Ericsson, Ulf.* Explosive shock travel times at different ambient densities. 1105.
- Eriksen, E. s. Foldy, L. L.* 1167.
- *Pauli* principle and the symmetry properties of many-electron wave functions. 1496.
- *s. Foldy, Leslie L.* 977.
- , *V. O. and Hülgl, W.* Thermal conductivity and electrical resistivity of uranium. 1317.
- et *Zaleski, C. P.* Utilisation des rayons γ provenant de la réaction (n, γ) produits par les neutrons d'une pile. 2347.

- Eriksen Jenssen, G. and Sunde, A.* Scintillation counter as gamma ray spectrometer. 1979.
- , *Warren T. s. Hawkins, J. Erskine.* 212.
- Eriksson, T.* Polarization of high energy protons scattered by iron. 602.
- Erismann, Theodor.* Theorie und Anwendungen des echten Kugelgetriebes. 1106.
- Erkman, J. O.* Free surface motion due to obliquely incident shock waves. 1731.
- Erlandsson, Gunnar.* Microwave spectrometer and its applications to some organic molecules. 787.
- Measurements on the microwave spectra of methyl alcohol and nitromethane. 2410.
- Microwave spectrum of fluorobenzene. 2410.
- Analysis of the microwave spectrum of formic acid. 2410.
- Erlenmeyer, H. s. Fallab, S.* 1273.
- Ernst, H. s. Havemann, R.* 854.
- *s. Hayward, R. W.* 590.
- Errulat, F. s. Böhnecke, G.* 2257.
- Messungen der Horizontalintensität des erdmagnetischen Feldes auf der Ostsee in den Jahren 1938 und 1939 ausgeführt mit dem Doppelkompaß als Tauchgerät. 2568.
- Messungen der erdmagnetischen Vertikalintensität auf See auf mehrfach befahrenen Profilen zur Prüfung der mit einem geschleppten Rotationsgerät erreichbaren Meßgenauigkeit. 2568.
- Lokale und regionale Anomalien der Säkularvariation. 2568.
- Ertaud, A. s. Bourgeois, J.* 1989.
- Esaki, Leo.* Electrical resistivity and thermionic emission of silicon. 132.
- Esau, A.* Verhalten parabolischer Spiegel in absorbierenden Medien. 2175.
- 70. Geburtstag. 2254.
- Escande, Léopold et Nougaro, Jean.* Expériences sur le fonctionnement en charge des canaux de fuite. 1950.
- Esclançon, Ernest.* Détonations balistiques engendrées par les avions supersoniques. 918.
- Eshelby, J. D.* Geometrical and apparent X-ray expansions of a crystal containing lattice defects. 108.
- Eshleman, V. R. Gallagher, P. B. and Peterson, A. M.* Continuous radar echoes from meteor ionization trails. 850.
- Eshleman V. R. s. Villard, O. G.* 2561.
- Eskenazi, M.* Etalon primaire photométrique et la théorie des grandeurs. 162.
- d'Espagnat, B. et Prentki, J.* Interactions faibles des hypérons et des mésons lourds. 2350.
- and *Prentki, Jacques.* Possible mathematical formulation of the *Gell-Mann* model for new particles. 1991.
- Espe, W.* Verbundmetalle in der Hochvakuumtechnik. 904.
- * *Espe, W. und Kühn, A.* Elementare Grundlagen der Kernphysik. 1089.
- *Kovar.* Werkstoff der Hochvakuum- und Gerätebau-Technik. 1918.
- Espinosa, M. L.* Interpretación de multipletes con fuerte interacción *Paschen-Back*. 995.
- Cálculo de fuerzas en patrones de fuerte interacción *Paschen-Back*. 995.
- Esprester, August und Haug, Albert.* Einfluß der Inhomogenität eines Plasmas auf seine Resonanzfrequenz. 481.
- Essen, L.* Standard frequency transmissions. 117.
- and *Parry, J. V. L.* Atomic standard of frequency and time interval. 1208.
- Essenwanger, O.* Häufigkeitsanalyse von Großwetterlagen. 2582.
- Essig, Frederick C and Holmes, John R.* Optical properties of evaporated aluminum films. 461.
- Estrada, L.* Electric quadrupole moment and corrections to the magnetic moment of the deuteron for velocity dependent tensor forces. 1534.
- Etzel, H. W. and Schulman, J. H.* Silver-activated alkali halides. 630.
- — Silver-activated alkali halides. 1626.
- , *Karl s. Schäfer, Harald.* 1113.
- Eujen, Ernst.* Durchflußmessung mit Drosselgeräten bei kleinen Reynoldszahlen. 1729.
- Euler, J.* Kleinglühlampen mit Linse in Taschenlampen mit Reflektoren. 1256.
- Euranto, Erkki K. s. Laurikainen, Kallervo V.* 537.
- Evans, D. s. Davies, J. H.* 763.
- , *D. J.* Collodion replicas from cross-sections of thin metallic strip and coatings. 1259.
- Comparison of dry stripped, unbacked collodion and formvar replicas. 1260.

- Evans, D. M. Layton, D. N. and Wilman, H.* Deformation of copper and iron crystals by unidirectional abrasion. 1728.
- , *G. E. s. Stier, P. M.* 428.
- , *G. O. s. Jowett, J. K. S.* 678.
- , *H. T. jr. and Ekstein, Miriam G.* Absorption factors for spherical crystals. 1002.
- , *s. Christ, C. L.* 795.
- , *J. s. George, E. P.* 248.
- , *J. C.* Infrared spectrum and thermodynamic functions of formamide. 1620.
- , *J. E.* Contour diagrams of thermal neutron absorption cross sections. 604.
- , *Joki, E. G. and Smith, R. R.* Evidence for a second naturally occurring isotope in tantalum. 401.
- , *s. Joki, E. G.* 66, 1594.
- , *s. Smith, M. S.* 1553.
- , *J. S. and Tredgold, R. H.* Positional correlation study for a system of two electrons. 1300.
- , *J. W.* Measurement of metallurgical equilibria by thermal conductivity gas analysis. 865.
- , *M. G. and Uri, N.* Photochemical polymerization in aqueous solution. 1010.
- , in *menmoriam.* 2254.
- , *P.* Mountains and gravity. 1283.
- , *S. s. Browne, I. C.* 1081.
- , *T. Hedges, J. M. and Mitchell, J. W.* Theory of photographic sensitivity. 2203.
- , *Titus C.* Protection measures in a university. 2229.
- , *U. R. s. Edeleanu, C.* 2220.
- , *s. Simmad, M. T.* 2548.
- , *W. G.* Saturating transformer reference circuit. 2503.
- , *W. H. s. Alston, Margaret H.* 386.
- , *Munson, Thomas R. and Wagman, Donald D.* Thermodynamic properties of some gaseous halogen compounds. 2309.
- Jacobson, Rosemary. Munson, Thomas R. and Wagman, Donald D.* Thermodynamic properties of the alkali metals. 2309.
- Everett, A. E. and Glaubman, M. J.* Gamma-gamma directional correlations in Cs^{134} . 1159.
- Everhart, Edgar Carbone, R. J. and Stone, Gerald.* Differential cross-section measurements for large-angle collisions of helium, neon, and argon ions with argon atoms at energies to 100 kev. 1394.
- , *Stone, Gerald and Carbone, R. J.* Classical calculation of differential cross section for scattering from a Coulomb potential with exponential screening. 1584.
- , *s. Carbone, Robert J.* 1394.
- , *s. Stone, Gerald.* 1394.
- Everling, F. und Mattauch, J.* Aufklärung von Unstimmigkeiten bei massenspektrographischen Dublett-messungen. 1346.
- , *s. Bieri, R.* 1123.
- Evers, Editha und Schober, Herbert.* Einfluß der Fokusgröße auf die Detailerkennbarkeit kleinster Objekte. 1905.
- Eveson, G. F. and Hall, E. W.* Continuous-flow rotational viscometer for use with downward-settling suspensions. 2288.
- Evet, A. A.* Theoretical evaluation of the binding energy of HeH. 9.
- Evison, F. F.* Early arrivals in seismic prospecting. 1488.
- Evva, Franz.* Lichtstreuung von solvatisierten Kolloidteilchen. I. Einfluß der Schutzkolloidsolvathülle auf die Trübung von Silberchloridhydrosolen. 2096.
- , II. Einfluß der Ladung der Silberchloridteilchen auf die abschirmende Wirkung der Schutzkolloidhülle in Silberchloridhydrosolen. 2096.
- , Theorie der Optik weißer Solen. II. 2449.
- Ewald, A. W. s. Kohnke, E. E.* 1433.
- , *H. und Sauermann, G.* Stigmatisch abbildender doppelfokussierender Massenspektroph. 1749.
- , *s. Liebl, H.* 1984.
- , *s. Schierstedt, G. v.* 2006.
- Ewles, J.* Luminescence to-day. 325.
- Exner, M.-L. Güth, W. und Immer, F.* Akustisches Verhalten körniger Substanzen bei Anregung zu Schub-schwingungen. 1734.
- , Untersuchung unperiodischer Zeitvorgänge mit der Autokorrelations- und der Fourieranalyse. 2179.
- Extermann, J. C. s. Grivet, P.* 1917.
- , *R. s. Geneux, E.* 97.

Extermann s. Cagnac, Bernard. 815.

— s. Manus, Claude. 815.

—, R. C. s. Béné, Georges J. 1643.

Eyenois, D. A. Owen, B. G. Price, B. T.

Wilson, J. G. Hammersley, J. M. and

Morton, K. W. Ionization loss of

relativistic μ -mesons in neon. 245.

Eyraud, Ch. Domanski, B. et Mourgues, de

L. Etude de l'activation catalytique

de fils de platine. Combustion du

mélange méthane-air. 1841.

—, Ivan s. Déjardin, Georges. 1404.

Eyring, Henry and Ree, Taikyue. Theory

of plasticity involving the virial

theorem. 1941.

— s. Barker, Roland S. 99, 1401, 1616,

1931.

F

Faber, T. E. Phase transition in super-

conductors. IV. Aluminium. 284.

— and Pippard, A. B. Penetration depth

and high-frequency resistance of

superconducting aluminium. 283.

Fabian, Mlle Joyce, Delaroff, Vladimir et

Légrand, Maurice. Absorption infra-

rouge des amidines. Spectres de

quelques N-alcoyl N'-phényl benza-

midines. 2059.

—, — Poirier, Pierre et Légrand, Maurice.

Etude spectrale ultraviolette et infra-

rouge des colchicines et apparentés.

627.

Fabricand, B. P., Allison, B. and Halpern,

J. Photoneutron angular distribuion

from carbon. 1354.

— s. Yergin, Paul F. 1354. 1775.

Fabry, Claudine s. Dallemagne, M. J.

1273.

Facchini, U. and Malvicini, A. Fast

ionization chamber in the study of

α -radio-activity in air. 1485.

— s. Colli, Laura. 143.

Faes, M. s. Capron, P. 1988.

Fajfarman, A. and Shamos, M. H. Cosmic-

ray μ meson -low-energy differential

range spectrum. 93.

— Low-energy differential range spec-

trum of cosmic-ray μ mesons. 424.

—, — Mesonic X-rays from capture of cos-

mic ray μ mesons in a chemical com-

pound. 1523.

—, — Effect of fall-out from atomic

blast on background counting rate.

2348.

Fagg, L. W., Wolicki, E. A., Bondelid, R.

O. Duning, K. L. and Snyder, S. Cou-

lomb excitation of energy levels in Te

and Ag. 2026.

—, —, —, — Coulomb excitation of

tellurium and silver. 2026.

— s. Wolicki, E. A. 1790.

Fahlenbrach, H. Permeabilitätsänderungen

durch Magnetfeldabkühlungen bei

Eisen-Silizium-Einkristallen. 2104.

— Ursachen der Permeabilitätsänderun-

gen durch Magnetfeldabkühlungen bei

Eisen-Silizium-Einkristallen. 1210.

— Grundprozesse der Magnetisierung bei

Alnico-Dauermagnetlegierungen. 1270.

Fahrenfort, J. and Ketelaar, J. A. A.

Simultaneous vibrational transitions

in the infrared absorption spectra of

compressed gases. 1619.

Failla, G. s. Ellis, R. Hobart jr. 415.

Fain, W. M. Geschwindigkeitsverteilung

der Elektronen beim Vorhandensein

eines veränderlichen elektrischen Fel-

des und eines konstanten Magnet-

feldes. 1867.

Fairbank, H. A. and Wilks, J. Heat

transfer in liquid helium below 1°K.

632.

—, — Heat transport and boundary layer

resistance in He II below 1°K. 1197.

—, J. s. Bonnemay, M. 2485.

—, W. M., Hath, E. M., Blevins, M. E.

and Slaughter, G. G. Liquid helium

bubble chamber. 1976.

— s. Dessler, Alexander J. 449.

Faire, A. C. and Griffing, George W. Low-

pressure afterglow studies in nitrogen.

788.

Fairhall, A. W. Fission of bismuth by

22-Mev deuterons. 1775.

— s. Debs, R. J. 55.

— s. Halpern, I. 55.

Fairweather, A. Dielectric absorption in

dilute, liquid, polar solutions: A new

approach. 842.

Faissner, H. und Bothe, W. Höhere

Maxima in der Schauer-Auslösekurve.

164.

— Lauterjung, K. H. und Schimmer, B.

Form der Schauer-Auslösekurve bei

großen Bleidicken. 2044.

Fajans, Kasimir s. Bequin, Gilbert. 1006.

Falk G. und Mann, A. Zähigkeitsver-

halten von Ortho- und Para-Wasser-

stoff. 1118.

- Falk, G. und Marschall, H.* Auswahl der physikalisch brauchbaren Lösungen der Schrödinger-Gleichung. 1926.
- Quantenmechanik des Mehrkörperproblems. 1992.
- Analogie zwischen Hamilton-Jacobi-Theorie und quantenmechanischem Eigenwertproblem. 1926.
- Falk-Variant, Paul et Teillac, Jean.* Calcul des intensités des raies de structure fine de quelques émetteurs α pairs-pairs. 2382.
- Falkenhagen, H.* Kurt Bennewitz zum 70. Geburtstag. 1489.
- und *Kelbg, G.* Abweichung von der Boltzmann-Verteilung. 218.
- , — Quantitative Theorie des Wien-Effektes in konzentrierten elektrolytischen Lösungen. 826.
- , — Klassische Statistik unter Berücksichtigung des Raumbedarfs der Teilchen. 1744.
- , — Spannungsabhängigkeit der elektrischen Leitfähigkeit starker nicht assoziierender Elektrolyte unter Berücksichtigung des Raumbedarfs der Ionen. 2141.
- und *Schmutzer, E.* Oberflächenspannung starker elektrolytischer Lösungen bei höheren Konzentrationen. 806.
- , — Kovolumeneffekt und -theorie der diffusion starker konzentrierter Elektrolyte in wäßrigen Lösungen. 2481.
- Falkoff, D. L.* Noise fluctuations and irreversible processes. 553.
- Fallab, S. und Erlenmeyer, H.* Kationengleichgewichte in biologischen Systemen. Metallionen und biologische Wirkung. 1273.
- Falta, Wolfgang.* Photometrische und sensitometrische Untersuchungen an photographischen Papieren verschiedener Oberfläche. 2535.
- Faltings, Volkert s. Harteck, Paul.* 2250.
- Famularo, K. F. s. Simmons, B. E.* 582, 1790.
- *s. Stratton, T. F.* 65, 977.
- Fan, C. Y.* Excitation of air glow by electronic impact. 102.
- Origin of cosmic radiations. 1605.
- H. Y. s. Altroy, F. d'* 1434, 2126.
- s. Caldwell, R. S.* 1433.
- s. Kaiser, W.* 1034.
- s. Schulz-DuBois, E.* 2125.
- s. Spitzer, W.* 1031, 2125.
- Fan, C. Y. s. Stoeckmann, F.* 2124.
- Fan, Ky.* Inequalities concerning positive-definite hermitian matrices. 1491.
- Fang, P. H.* Reciprocity theory of elementary particles. 900.
- Fankuchen, I. s. Ladell, Joshua.* 2067.
- Fano, U.* Quantum theory of irreversible processes. 32.
- Application of operator calculus to irreversibility. 384.
- Stokes-parameter technique for the treatment of polarization in quantum mechanics. 1294.
- Fanslau, G. und Thiele, E.* Geomagnetische Kennziffern 1890 bis 1907. 2569.
- Fantappiè, Luigi.* Teoria di relatività finale. 897.
- Deduzione della legge di gravitazione di Newton dalle proprietà del gruppo di Galilei. I. II. 1725.
- Farber, Milton and Darnell, Alfred J.* Spectroscopic examination of the $\text{NH}_2\text{-HNO}_3$ and $\text{NH}_3\text{-NO}_2$ diffusion flames. 1116.
- Farinelli, U. and Gamba, A.* Entropy in quantum mechanics. 1961.
- Fark, H.* Messungen kurzer Zeiten mit einer von zwei Photozellen gesteuerten Kippschaltung. 903.
- Farley, F. J. M.* Nomogram for nuclear reaction calculations. 2364.
- Farmer, Donald J.* Decay of neutron deficient rhodium isotopes. 1358.
- and *Streib, J. F.* Onequantum annihilation of positrons. 1129.
- *s. Kochendorfer, D. B.* 66.
- , *Earle C. and Berstein, Irving A.* Moulded multi-crystalline stilbene for scintillation counting. 227.
- , *F. T. s. Clark, R. E. D.* 1053.
- *s. Fowler, J. F.* 292, 1038.
- Sub-standard X-ray dose-meter. 1904.
- Farmilo, C. G. s. Bartlett, J. C.* 505.
- Farney, G. K. Givin, H. H. Kern, B. D. and Hahn, T. M.* High-energy gamma rays from the proton bombardment of fluorine. 410.
- s. Givin, H. H.* 413.
- Farnsworth, H. E., Schlier, R. E. and Burger, R. M.* Low-energy electron diffraction studies of a germanium crystal surface. 638.
- s. Allen, R. B.* 2120.
- *s. Burger, R. M.* 2472.
- *s. Dillon, J. A. jr.* 2446.

- Farnsworth, H. E.* s. *Schlier, R. E.* 638.
Farooqi, Afzal s. *Chaudhri, Rafi Moham-med.* 1606.
Farquhar, Marilyn Gist s. *Rinehart, James F.* 2223.
Farr, Lee E. s. *Rall, J. E.* 2557.
Farrall, George A. and *Mingins, Charles R.* Open screen technique in electron microscopy. 166.
Farrant, J. L. and *Rogers, G. E.* Fine histology of wool and wool follicles. 2083.
Farrar, R. T. s. *Ravilious, C. F.* 862.
Farrell, F. Simplified line-width procedure for measuring dense spectrum lines. 495.
Farrelly, B., Koerts, L., Benczer, N., Lieshout, van R. and *Wu, C. S.* Radiations from Sb¹²². 1560.
 —, *Lieshout, van R. Benczer, N.* and *Wu, C. S.* Radiations of Sb¹²². 1161.
 — s. *Benczer, N.* 1159, 2376.
 — s. *Koerts, L.* 1156.
Farringer, L. D. s. *Ting, Yu.* 1846.
Farris, V. D. Moving striations. 1046.
Farvis, W. E. J. s. *Pringle, D. H.* 142, 667.
Farwell, G. W. s. *Kerlee, D. D.* 1588.
 — s. *Schmidt, F. H.* 390.
Fassbender, H. Entwicklung von Strahlungsmeßgeräten. 553.
 —, *J.* Einfluß einer Glimmentladung auf die Leitfähigkeit von Cadmiumsulfid-Einkristallen und die Erzeugung Ohmscher Kontakte. 1862.
Fassel, Velmer A. and *Hettel, Henry J.* Isotopic assay of lithium by means of hydride band emission spectra. 1349.
 — s. *Brehm, Richard.* 1064.
Fast, J. D. Wasserstoffarme Schweißelektroden. 511.
Fastie, W. G. s. *Crosswhite, H. M.* 1678.
Faure, Robert. Transformations conformes en mécanique ondulatoire. 2266. (11004).
Faust, H. Nullschichteffekt als Funktion der Schärfe des Maximums in der vertikalen Windverteilung. 2580.
 — Warum gibt es mehr Tief- als Hochdruckgebiete? 2581.
 — s. *Schneider-Carius, Karl.* 2251.
 — *R. C.* Refractive index determinations by the central illumination (Becke line) method. 1459.
 — Interferometric method of studying local variations in the refractive indices of a solid. 2521.
Faust, W. R., O'Rourke, R. C. and *Elliot, J. O.* Cloudy crystal ball analysis of 14 Mev elastic neutron scattering data. 1379.
 — *Scherrer, V. E.* and *Allison, B. A.* γ - γ coincidences produced by inelastic scattering of 2.5-Mev neutrons. 1122.
 — s. *Scherrer, V. E.* 597, 772.
Favre, R. Circuit multistable composé à cycle quinaire naturel. 34.
 — Diviseur de fréquence utilisant un tube à émission secondaire. 487.
 — et *Haenny, Ch.* Construction de compteurs Maze et leurs caractéristiques de 0° à 50°C. 1746.
Favreau, R. R. s. *Aseltine, J. A.* 1248.
Faucett, E. Surface resistance of normal and superconducting tin at 36 kMc/s. 1428.
Fazzini, Tilo s. *Carrara, Nello.* 1093.
 , *T. F.* s. *Corte, M. della.* 985.
Feaster, G. R. *Prosser, F. W.* and *Wiseman, G. G.*, Automatic charge measuring and recording apparatus. 462.
Feather, N. Theorem involving binding energies in relation to β -disintegration. 2009.
 — s. *Ross, M. A. S.* 412.
Feder, Harold M. and *Taube, Henry.* Ionic hydration: an isotopic fractionation technique. 2359.
Federhofer, Karl. Die durch pulsierende Axialkräfte gedrückte Kreiszylinderschale. 198.
Federici, s. Ponzio, M. 2552.
Federlin, P. s. *Kirrmann, A.* 830.
Féderlin, Paul. Etudes polarographiques sur les aldéhydes. III. Aldéhydes α chlorés et α bromés en C₄ et C₇. 2484.
Feenberg, E. s. *Goldhammer, P.* 401.
 — Superallowed beta transitions in the N-Z = 3 series. 1576.
 — s. *Bolsterli, Mark.* 595, 2356.
Fehr, G., Fletcher, R. C. and *Gere, E. A.* Exchange effects in spin resonance of impurity atoms in silicon. 1856.
Feik, s. Brodhun. 22.
Feil, F. Verstärkungskonstanz gegengekoppelter Verstärker. 154.
Fein, Elihu. Causality, relativity, and language. 1917.
Feindt, Hans Rudolf. Dunkelkammer der röntgendiagnostischen Abteilung des Strahleninstitutes des Allgemeinen Krankenhauses St. Georg, Hamburg. 2558.

- Feiner, F. s. Ashkin, J. 424, 2395.
 — Ashkin, J., Blaser, J. P. and Stern, M. O. Differential cross sections for pion-proton scattering at 150 and 170 Mev. 982.
 Feingold, Arnold M. Effect of the tensor force on the level structure of Li^6 and Li^7 . 2374.
 — and Frankel, Sherman. Geometrical corrections on angular correlation measurements. 388.
 — s. Lyons, D. H. 62.
 Feitelberg, Sergei s. Loevinger, Robert. 36.
 Fejer, J. A. Interaction of pulsed radio waves in the ionosphere. 2573.
 Fekhhikher, Abderrahman. Puissances d'une matrice et application aux réseaux itérés. 1056.
 Feld, Bernard s. Odian, Allen. 1146.
 —, B. T. Deuteron model for π -meson and photon capture by complex nuclei. 7.
 — Linear electron accelerator as a pulsed neutron source. 2345.
 — Odian, A. C. Ritson, D. M. and Wattenberg, A. Spin of the τ^+ meson. 2016.
 — s. Ritson, D. M. 1994.
 — Photomeson production from hydrogen. 942.
 — Effects of angular momentum of τ -decay schemes. 1994.
 — High-energy nuclear physics. 2349.
 — High-energy nuclear physics. 2361.
 — Julian, A., Odian, A. C., Osborne, L. S. and Wattenberg, A. Search for the production of μ -meson pairs by a 345-Mev synchrotron beam. 398.
 —, M. and Klein, F. S. Automatic liquid nitrogen level regulator for cold traps. 11.
 Feldman, Cyrus and Ellenburg, Janus Y. Contrast changes of Eastman Kodak spectrum analysis Nr. 1 emulsion during cold storage and their effect on observed intensity ratios. 2204.
 —, David s. Ohnuma, Shoroku. 1167.
 —, T. s. Welsh, H. L. 2056.
 Feldmann, Klaus s. Luther, Horst. 1188.
 —, W. L. s. Pearson, G. L. 1433, 2139.
 Feldtkeller, R. Hörbarkeit nichtlinearer Verzerrungen bei der Übertragung von Instrumentenklängen. 1903.
 — und Nonnenmacher, Walter. Einheitliche elektrische Ersatzschaltbilder für elektroakustische Wandler. 2300.
 Feldtkeller, R. und Sorger, Günther. Magnetische Nachwirkungen der Anfangspermeabilität und der Barkhausensprünge. 276.
 Felice, P. de s. Demon, L. 2564.
 Felix, B. R., Passell, L. and Silsbee, H. B. Thermal conductivity of superconducting lead below 1°K . 1854.
 — s. Passell, L. 1741.
 Fender, D. H. s. Ditchburn, R. W. 512.
 Fendler, H. G., Husmann, W. und Stuart, H. A. Anomal kleine Längen von Fadenmolekülen in Lösung. 266.
 Fennema, J. W. R. s. Hok, Ong Ping. 2383.
 Fenner, E. Röhrenfragen bei Serien- und Röntgenkinoaufnahmen. 2558.
 Fényes, I. Divergenzproblem der W. K. B. Methode. 2265.
 — Wahrscheinlichkeitstheoretische Begründung und Interpretation der Quantenmechanik. 1926.
 — Anwendung der mathematischen Prinzipien der Mechanik in der Thermodynamik. 1969.
 Fenyves, E. and Haiman, O. Cosmic radiation underground. 991.
 —, — Anomalies of the absorption curve of cosmic rays in lead. 2044.
 Ferentz, M. and Rosenzweig, N. Tabulation of F coefficients. 76.
 Ferguson, A. J. and Litherland, A. E. Analysis of triple angular correlations in nuclear bombardment experiments. 601.
 —, A. T. G. and Lewis, G. M. Annihilation of positrons in solids. 2349.
 — s. Allen, W. D. 421, 981.
 —, Eldon. Normal coordinate analysis of the nonplanar vibrations of 1,3,5-trifluorobenzene. 432.
 —, E. E., Hudson, R. L., Nielsen, J. Rud and Smith, D. C. Vibrational spectra of fluorinated aromatics. III. 1,4-difluorobenzene. IX. p-fluorotolnene. 432.
 — Mikkelsen, Louis, Nielsen, J. Rud and Smith, D. C. Vibrational spectra of fluorinated aromatics. VIII. 1,4-bis(trifluoromethyl) benzene. 432.
 —, G. A. Peters, C. W. and Jablonski, F. E. Investigation of boron trimethyl counters. 1119.
 —, J. s. Carswell, D. J. 293.
 —, K. R. Optical absorption bands induced in gamma irradiated glass. 1830.

- Ferguson, W. F. C. s. Hall, Joseph F. jr.* 2091, 2208.
- Fergusson, G. J. s. Vries, Hl. de* 38.
- Ferrigle, Salvador M. and Weber, Alfons.* Thermodynamic properties of diacetylene. 2308.
- , *Salvador s. Weber, Alfons.* 433.
- Ferlazzo, G., Nicholson, T., Jacobson, A. and Bushman, M.* Radiation hazard evaluation and control in hospitals. 2229.
- Fermi, Enrico* 2255.
- *Metropolis, N. and Alei, Felix E.* Phase shift analysis of the scattering of negative pions by hydrogen. 90.
- Fernández, A. s. Bonner, T. W.* 421.
- Fernando, W. M. G. and Barlow, H. E. M.* Investigation of the properties of radial cylindrical surface waves launched over flat reactive surfaces. 1875.
- Fernbach, S., Culler, G. and Sherman, N.* Optical model analysis of scattering of 14-Mev neutrons. II. Polarization effects. 979.
- *s. Sherman, N.* 979.
- *Heckrotte, Warren and Lepore, Joseph V.* Theory of polarization of nucleons scattered elastically by nuclei. 414.
- Ferner, V.* Regelbarkeit industrieller Anlagen. 908.
- Ferradini, Mlle Christiane.* Dépôt cathodique du protactinium sur divers métaux. 835.
- Ferrari, F. and Villi, C.* Nonuniform charge distributions and μ -meson capture. 398.
- , *Italo.* Multipoli e onde di Schelkunoff dissimmetriche. 1878.
- Ferranti, Sir Vincent Z. de.* Conférence mondiale de l'énergie. 1090.
- Ferraro, V. C. A.* Remarks on notes by Drs. Sugiura and Vestine. 520.
- Hydromagnetic waves in a rare ionized gas and galactic magnetic fields. 818.
- Origin of magnetic storms and aurorae. 2568.
- Ferrell, R. A.* Angular dependence of the characteristic energy loss of electrons passing through metal foils. 1181.
- and *Visscher, W. M.* Nuclear compressibility and the 0^+ states of oxygen-sixteen and carbon-twelve. 1791.
- Coulomb enhancement of positron annihilation in metals. 1989.
- Ferrell, R. A. s. Visscher, William M.* 411.
- Ferrero, M. A. and Sacerdote, G. G.* Acoustic impedance measurement using a resonance method. 2209.
- Ferretti, L. e Veronesi, P.* Influenza di un campo magnetico trasversale sulla tensione d'innescio della scarica in un gas in alta frequenza. 1443.
- Ferry, John D. s. Plazek, D. J.* 1412.
- Feshbach, Herman.* Relativistic wave equations. 1495.
- and *Rubinow, S. I.* Equivalent two-body method for the triton. 944.
- *s. Morse, Philip M.* 2264.
- Fessler, H. and Lewin, B. H.* Stress distribution in a tee junction of thick pipes. 1100.
- Fetterley, G. H.* Current sources and controllers for the d. c. arc. 504.
- Fetzer, H. s. Wachsmann, F.* 344.
- , *V.* Berechnung des Einschwingvorganges bei beliebiger Dämpfungs- und Phasenverzerrung. 1878.
- Feucht, W.* Rheologische Probleme der Spannungsoptik. 729.
- Feuer, Paula.* Electronic states in a perturbed periodic lattice. 1095.
- Electronic states in a perturbed periodic lattice. 1500.
- Févrot, C. et Ulmo, J.-F.* Parasites d'origine industrielle: sources, mesure, élimination. 676.
- Feuer, D. R. s. Blackwell, J. H.* 1922.
- Fey, R. L. and Graham, W. J.* Ambipolar diffusion in xenon at 3-cm wavelength. 1231.
- Feyfer, G. D. de s. Aten, A. H. W. jr.* 964, 2331.
- Feynman, R. P.* λ -transition in liquid helium. 632.
- Slow electrons in a polar crystal. 442.
- Atomic theory of the λ transition in helium. 633.
- Atomic theory of liquid helium near absolute zero. 633.
- Fiandesio, D. s. Ponzio, M.* 2552.
- Fickle, D. P. s. Buzzard, R. W.* 1075.
- Fiedler, H. s. Schwieger, H.* 1961.
- Field, J. H.* Representation of impedances on the resistance network analyser. 1056.
- , *N. J. s. Levin, S. B.* 1627.
- Fielding, P. E.* Electrical properties of some complex compounds. 1224.
- and *Mellor, D. P.* Electrical properties of some complex compounds. 1225.

- Fields, P. R., Studier, M. H., Magnusson, L. B. and Huizenga, J. R.* Spontaneous fission properties of elements 97, 98, 99 and 100. 2370.
- *Gindler, J. E., Harkness, A. L., Studier, M. H., Huizenga, J. R. and Friedman, A. M.* Electron capture decay of Am^{244} and the spontaneous fission half-life of Pu^{244} . 1578.
- *s. Ghiorso, A.* 1322.
- *s. Magnusson, L. B.* 579.
- *T., Schillinger, E. J. and Kenski, J.* Pulse characteristics of CdSe crystals. 2133.
- *T. H., Fox, J. G., Kane, J. A. Stallwood, R. A. and Sutton, R. B.* Reaction $p + p \rightarrow \pi^+ + d$ with polarized protons. 563.
- *s. Sutton, R. B.* 417.
- Fierz, M.* Ergodensatz in der Quantenmechanik. 717.
- Physikalische Deutung der erweiterten Gravitationstheorie P. Jordans. 1710.
- Fieschi, R., Groot, S. R. de and Mazur, P.* Thermodynamical theory of galvanomagnetic and thermomagnetic phenomena. III. Explicit expressions for the measurable effects in isotropic metals. 272.
- , —, — and *Vlieger, J.* Thermodynamical theory of galvanomagnetic and thermomagnetic phenomena II. Reciprocal relations for moving anisotropic mixtures. 271.
- Fillet, Pierre, Niclause, Michel et Letort, Maurice.* Etude cinétique du mécanisme d'oxydation photochimique de l'acétaldéhyde liquide. 1888.
- Filmer, A. J. s. Hutchison, T. S.* 2302.
- Filosofo, I.* Čerenkov counter as high-energy photons spectrometer. 1325.
- *s. Brini, D.* 425.
- Filter, J. H. J.* Microsecond timer checks concrete beams. 920.
- Finch, G. I. s. Déo, A. R.* 2420.
- Fincke, H. E.* Methodik der Durchrechnung windschiefer Strahlen durch zentrierte Linsensysteme. 318.
- Findley, Leon s. Koenigsberg, Ernest.* 271.
- Fine, S. and Hendee, C. F.* X-ray critical-absorption and emission energies in kev. 2050.
- Finan, J. B.* Miniature diffraction cameras for micro-focus X-ray units. 1821.
- Fink, Richard W. and Robinson, Berol L.* K and L X-ray intensities in cesium-131 decay. 966.
- *s. Beggs, William C.* 1582.
- *s. Robinson, Berol L.* 597.
- Finkelburg, H. H.* Moderne Verfahren der mechanischen Feinbearbeitung von Metallen. 2549.
- , *W. s. Busz-Peuckert, G.* 1236.
- *s. Müller, G.* 2495.
- und *Humbach, W.* Ionisierungsenergie von Atomen und Atomionen. 249.
- Very high temperature arcs. 1049.
- *— *Atomphysik.* 1705.
- Finkelstein, David.* Spin models. 6.
- Dynamics of the Kleinparticle. 365.
- , *Nisson A.* Measurement of wavelength in Echelle spectra. 491.
- , *R. J.* Generalized beta invariants. 718.
- Non-local form factors. 718.
- and *Behrends, R. E.* Radiative corrections to muon decay. 47.
- , — Radiative corrections to muon decay. 941.
- *s. Behrends, R. E.* 1528, 1716.
- Finlay-Freundlich, E.* Red-shifts in the spectra of celestial bodies. 1711.
- und *Kurth, R.* Grundlagen, Ziele und Möglichkeiten einer mechanischen Theorie der Sternsysteme. 177.
- Fiora, Verna C. s. Turner, T. E.* 434.
- Fiorentini, Adriana s. Ercoles, Anna Maria.* 2225.
- Fireman, E. L.* Tritium production by 2.2-Bev protons on iron and its relation to cosmic radiation. 404.
- and *Rowland, F. S.* Tritium and neutron production by 2.2-Bev protons on nitrogen and oxygen. 53.
- Firle, T. E. and Winston, H.* Noise measurements in semiconductors at very low frequencies. 2136.
- , *McMahon, M. E. and Roach, J. F.* Recovery time measurements on point-contact germanium diodes. 2479.
- Firssow, Ju. A. s. Ansselm, A. I.* 260.
- Firth, D.* Multiway valve for pressure connexions. 546.
- and *Young, Leslie.* Model experiments on special control valves. 2276.
- Fisch, A.* Verlauf der Bindungsenergie. 49.
- Fischbach, D. B. and Nowick, A. S.* Creation of a potential difference across NaCl crystals by deformation. 1241.

- Fischbach, D. B. and Nowik, A. S.* Deformation-induced charge flow in NaCl crystals. 1863.
- Fischer, David and Baldwin, John.* Proton-proton polarization at 170 Mev. 1591.
- , *Dietert.* Massenspektrometer mit doppelter Richtungsfokussierung und Geschwindigkeitsfokussierung. 2342.
- , *F. A. Heinrich Stenzel.* 2254.
- , *Gerhard E.* Scattering of 10-Mev protons on carbon and magnesium. 408.
- , *H. and Heiling, H.* Wasserstoffüberspannung und Wasserstoffdiffusion durch Eisenkathoden. 2147.
- , *Seipt, M. und Morlock, G.* Oszillographische Studien zur irreversiblen Polarisation der kathodischen Nickelabscheidung. I. 295.
- *s. Reiser, H. J.* 660, 833.
- *s. Sroka, R.* 2159.
- Radiation time lags in short oscillating spark discharges. 2164.
- , *Hellmuth.* Elektrokristallisation von Metallen. 695.
- , *I. S.* Stabilität einer homogenen Phase. I. Allgemeine Theorie. 213.
- , *J. Julius Wallot* 80 Jahre. 2255.
- und *Dosch, F. P.* Wärmeübertragung dünner stromdurchflossener Drähte an Luft von Normalzustand bei freier Konvektion. 1960.
- , *Robert B. and Ellinger, Joseph P.* Replica technique in the study of chemical precipitation processes. 29.
- and *Ring, Charles E.* Nickel plating. 1894.
- , *R. M.* Applications of the extraction replica technique. 2210.
- , *V. K. s. Lidojsky, L. J.* 1358.
- Decay of Pm^{150} . 69.
- Metastable states in Re^{180} , Ir^{191} , Au^{193} , Pb^{201} and Pb^{203} . 1779.
- , *W. and Walcher, W.* Extraktion von Ionen aus plasmaähnlichen Gebilden. 759.
- Fischer-Hjalmars, Inga and Grabe, Barbro.* Theoretical study of the colored alkali oxides. 1185.
- Fišer, I. Z.* Stabilität eines Einphasensystems. II. Bestimmung der Stabilitätsgrenze. III. Theorie der Schmelzkurve. 1745.
- Fish, Howard R. s. Chernock, Warren P.* 866.
- Fisher, J. C. s. Bean, C. P.* 2478.
- Fisher, L. H. s. Bornstein, L. A.* 839.
- *s. DeBitetto, D. J.* 836.
- , *Sir Ronald.* Dispersion on a sphere. 2237.
- Fishman, Lawrence M. and Harbottle, Garman.* Szilard-Chalmers reaction in aqueous solutions of tri- and hexavalent chromium. 1148.
- Fiske, M. D. s. Schmitt, R. W.* 125.
- Effect of elastic dilatation and shear on the superconducting transition of tin. 127.
- Fitch, Stephen H. s. Ehrlich, Margarete.* 2227.
- , *V. and Moiley, R.* Mean life of K^+ mesons. 1521.
- Fité, J. A. García. s. Celma, M.* 756.
- Fitzer, E.* Spezifische Ätzfärbungen an Eisen-Silizium-Legierungen. Schnellmethode zum Erkennen hochprozentiger Eisen-Silizium-Legierungen. 2542.
- Fitzgibbon, George C. s. Zellmann, Alfred H.* 214.
- Fitzpatrick, J. W. s. Wall, R. F.* 1679.
- , *P. M. s. Howard, R. A.* 43.
- Fitzsimmons, A. E. s. Hawksley, P. G. W.* 2094.
- Flamant, Françoise.* Etude de la répartition de lumière dans l'image rétinienne d'une fente. 874.
- Flamm, Ludwig.* Ludwig Boltzmann. 50 Jahre nach seinem Tode. 2255.
- Flanders, P. J. s. Otter, F. A. jr.* 1474.
- Fleck, Joseph A. jr.* Kinetics of circulating reactors at low power. 1127.
- Fleeman, J. and Frantz, F. S. jr.* Film dosimetry of electrons in the energy range 0.5 to 1.4 million electron volts. 1977.
- , Film dosimetry of electrons in the energy range 0.5 to 1.4 Mev. 2557.
- Flegenheimer, J., Baró, G. B. und Medina, A.* Kurzlebige Molybdän- und Technetium-Isobare der Massenzahl 105. 567.
- Fleischmann, R. und Wegener, H.* Messung der absoluten Lichtphase mit einer Phasenkontrastanordnung. 1065.
- *s. Clausnitzer, G.* 1391.
- Fleishman, B. A. s. Rubin, Robert J.* 442.
- Fleisser, H.* Gleichaufregelung an Arbeitsmaschinen der Faserstoff-Industrie. 2277.
- Fleming, J. R. s. Hourd, R. F.* 987.
- and *Lord, J. J.* Ionization loss in nuclear emulsions. 1121.

- Fleming, P. J., Werntz, jr. J. H. and Dillinger, J. R.* Dependence of transfer rates of the helium II film on film length. 1197.
- , *W. H. and Thode, H. G.* Argon 38 in pitchblende minerals and nuclear processes in nature. 38.
- Fletcher, A.* Mathematical tables past and future. 2258.
- , *G. C.* Calculation of magnetostriction constants for nickel. 645.
- †, *M. F. s. Pitt, G. J.* 1689.
- , *P. C. and Aamodt, L. C.* Nuclear magnetic moment and mass of chlorine-36. 2458.
- *s. Aamodt, L. C.* 2458.
- , *R. C., Brown, W. L. and Wright, K. A.* Absence of bombardment annealing in the electron bombardment of germanium. 1029.
- *Merritt, F. R. and Yager, W. A.* Cyclotron resonances in germanium at 1.4° K. 1029.
- *Yager, W. A., Pearson, G. L., Holden, A. N., Read, W. T. and Merritt, F. R.* Spin resonance of donors in silicon. 130.
- *s. Brown, W. L.* 1219.
- *s. Feher, G.* 1856.
- *s. Shulman, R. G.* 1029.
- , *W. H. s. Herndon, John A.* 623.
- Fléureau, Bernard.* Formation de graphite par décomposition catalytique de l'oxyde de carbone. 1964.
- Fléury, Pierre.* Introduction. Zu: Journées d'études des applications des interférences. Reunion du mardi 3. Mai 1955. 860.
- Flieger, Howard W. jr. s. Masi, Joseph F.* 2308.
- Flint, H. T.* Lineare Feldtheorie. 1295 (6112).
- and *Williamson, E. M.* Relativistic theory of charged particles in an electromagnetic and gravitational field. 1717.
- , *O.* Electrolytic current flow by bubble migration. 665.
- *s. Charlesby, A.* 2042.
- Fljagin, V. B. s. Dželepov, V. P.* 1798.
- Flörke, O. W.* Strukturanomalien bei Tridymit und Cristobalit. 794.
- , *W.* Gerät zur Viskositätsmessung an Ölen. 1920.
- Flom, D. G. and Porile, N. T.* Effects of temperature and high-speed sliding on the friction of Teflon on Teflon. 2438.
- Flood, H.* Inorganic capillary analyses. 460.
- und *Urnes, S.* Berechnung der Aktivitäten in Magnesiumchlorid-Alkalischlorid-Schmelzen aus Strukturmodellen. 663.
- *Fykse, O. und Urnes, S.* Zusammenhang zwischen Konzentration und Aktivitäten in geschmolzenen Salzmischungen. II. 140.
- , *J. E. and Warman, J. B.* Low-frequency pulse-train generator. 1667.
- Florence, M. G. s. Hyde, E. K.* 74.
- Florescu, N. A.* Correct use of the formula for apparent pumping speed. 193.
- Florian, A. und Urban, P.* Matrixelemente und Integrale für das Schalenmodell der leichten Kerne. 1530.
- Florida, C. D. and Davey, C. N.* Use of halogen-quenched Geiger-Müller counters with quenching probes. 1119.
- and *Williamson, R.* Cold-cathode scaling unit. 222.
- Florin, R. E., Wall, L. A., Brown, D. W., Hymo, L. A. and Michaelsen, J. D.* Factors affecting the thermal stability of polytetrafluoroethylene. 1632.
- Florman, Edwin F.* Measurement of the velocity of propagation of very-high-frequency radio waves at the surface of the earth. 1449.
- Flory, P. J.* Phase equilibria in solutions of rod-like particles. 873.
- Flowers, B. H.* Excited states of nuclei in jj-coupling. 2029.
- *s. Batchelor, R.* 2038.
- Floyd, Acey L. and King, Robert B.* Relative vibrational transition probabilities of the CN violet bands. 102.
- Flügge, Johannes.* Leitfaden der geometrischen Optik und des Optikkrechnens. 2253.
- , *S. und Zickendraht, W.* Berechnung von Termagen und Feinstrukturaufspaltung in Mesonatonen. 780.
- Fluharty, R. G. s. Simpson, F. B.* 1383, 1553.
- Focas, Jean Henri.* Etude de la lumière polarisée de la lune pendant l'éclipse totale de lune du 29-30 janvier 1953, à Athènes. 2232.

- Fochs, P. D.* Measurements of the energy gap of semiconductors from their diffuse reflection spectra. 824.
- *s. Holmes, P. J.* 1821.
- Focke, Joachim.* Realisierung der Herzbergerschen Theorie der Fehler fünfter Ordnung in rotationssymmetrischen Systemen mit einer Anwendung auf das Schmidt'sche Spiegelteleskop. 319.
- Bildfehler eines konzentrischen optischen Systems. 319.
- Eikonol- und Bildfehlertheorie. 319.
- Analytische Theorie des Öffnungs- und Asymmetriefehlers und ihre Anwendung zur Vorrechnung optischer Systeme. 319.
- Fölsche, T.* Energieverteilung im geschichteten Körper bei Einstrahlung von dm- und cm-Wellen im Hinblick auf eine Wärmetherapie. 2552.
- Föpl, Ludwig und Mönch, Ernst.* Spannungsoptik als Beispiel für die Zusammenarbeit von Physiker und Ingenieur. 1502.
- Förster, Friedrich.* Messung von magnetischen Gleichfeldern und Gleichfelddifferenzen und Anwendung in der Metallforschung und Technik. 1073.
- Betriebsgerät zur schnellen und genauen Messung der Koerzitivkraft sowie ihrer Temperaturabhängigkeit. 1208.
- *Th. und Kasper, K.* Konzentrationsumschlag der Fluoreszenz des Pyrens. 1069.
- *s. Bonitz, E.* 2207.
- Foettinger, Hermann s. Domm, Ulrich.* 915.
- Foëx, Marc.* Evolution de quelques propriétés du sesquioxyde de vanadium au voisinage de ses transformations. I. Anomalies dilatométriques et électriques du sesquioxyde de vanadium. 2422.
- *s. Lebeau, Paul.* 1963.
- *s. Trombe, Félix.* 474.
- Fogel, L. J.* Measure for meaning. 2335.
- Fogg, P. G. T. and Lambert, J. D.* Ultrasonic dispersion in halo-ethylene vapours. 740.
- Foglesong, G. M. and Foxwell, D. G.* Magnetic analysis of the Co^{59} (d, p) Co^{60} reaction. 403.
- Fok, Shiu Ming s. Maron, Samuel H.* 2439.
- Foldy, L. L.* Dipole oscillator-strength sum rules for relativistic systemes. 364.
- and *Eriksen, E.* Vacuum polarization and proton-proton scattering. 1167.
- *s. Nigam, B. P.* 365.
- and *Eriksen, Erik.* Vacuum polarization and proton-proton scattering. 977.
- Foley, H. M. s. Sessler, A. M.* 619, 1808.
- *s. Sucher, J.* 428.
- *J. C. s. Peterson, O. S. jr.* 1278.
- Folger, R. L., Stevenson, P. C. and Seaborg, G. T.* High-energy proton spallation-fission of uranium. 407.
- Folkierski, A.* Input amplifier for a pulse-height analyser. 2183.
- Follett, Archie E. s. Fryling, Charles F.* 450.
- Foner, Simon.* Hall effect in permalloys. 1427.
- Foord, T. R.* Portable van de Graaff generator. 39.
- Foote, H. L. jr.* Slow neutron resonance scattering of U^{235} . 1383.
- and *Moore, J.* Slow neutron resonant scattering. 1380.
- *s. Sailor, V. L.* 409, 958.
- Forbush, Scott E.* World-wide cosmic-ray variations, 1937—1952. 778.
- World-wide variations in cosmic-ray intensity 1937—1952. 991.
- Absence of meteorological effects on the world-wide sunspot variation in cosmic-ray ionization. 1606.
- Ford, J. and Berlin, T. H.* Einstein-Bose gas below the critical temperature. 367.
- *K. W. s. Wall, N. S.* 601.
- Predicted $0 +$ level in $_{40}\text{Zr}^{90}$. 1157.
- and *Levinson, Carl.* Independent-particle model of the nucleus. II. Weak surface coupling. 1761.
- *s. Hill, David L.* 401.
- *s. Levinson, Carl.* 1760, 1761.
- *L. H. s. Rayner, G. H.* 2101.
- *R. L.* Electrical analogues for heat exchangers. 748.
- Foreman, C. E. and Crouch, M. F.* Neutron slowing down time. 419.
- Forestier, H. s. Maurer, J.* 2548.
- et *Mangin, André.* Four de laboratoire pour hautes températures. 2274.
- Forker, Wolfgang.* Adsorptions- und Desorptionsverhalten von aktiven Eisenpulvern. 2332.

- Forkman, Bengt s. Johansson, Sven A. E.* 2014.
- Forman, R.* Measurement and theoretical study of electrical conductivity and Hall effect in oxide cathodes. 845.
- Measurement and theoretical study of the conductivity and Hall effect in the oxide cathode. 845.
- Forrest, J. W.* Linear refractometer. 1677.
- Forrester, A. Theodore, Gudmundsen, Richard A. and Johnson, Philip O.* Photoelectric mixing of incoherent light. 1052.
- Forsenz, G. s. Itterbeek, A. van* 262.
- Forsberg, Ragnar s. Svensson, Harry.* 853.
- Forshaw, C. R.* Wavelength discrimination spectrometer. 2193.
- Forstat, H. and Reynolds, C. A.* Closed fountain effect and compressibility of helium II. 1197.
- , — Heat transfer in fine channels of helium II. 449.
- Forster, E. L. s. Breitenbach, J. W.* 2436.
- , *H. H. and Rosen, A.* Decay of ^{103}Ru . 242.
- , — Decay of Ru^{103} . 1153.
- and *Wiggin s. J. S.* Decay of ^{134}Cs . 771.
- , — Radioactive decay of Cs^{134} . 1369.
- , *H. Kurt.* Green's function for heat conduction-convection problems with given motion of the boundaries. 381.
- , *Michael J.* Unilateral compression of rubber. 1415.
- Forsyth, P. A. and Vogan, E. L.* Forward-scattering of radio waves by meteor trails. 1482.
- *Hines, C. O. and Vogan, E. L.* Diurnal variations in the number of shower meteors detected by the forward-scattering of radio waves. II. Experiment. 2561.
- *s. Hines, C. O.* 706, 2561.
- , *P. J. E. and Stubbington, C. A. S.* Slipband exudation effect observed in pure aluminium. 335.
- Foster, Charles G. s. Rall, J. E.* 2557.
- *E. L. s. Berman, R.* 1318.
- , *John S. jr., Lawrence, E. O. and Lofgren, E. J.* High vacuum high speed ion pump. 1934.
- Fouché, V. s. Crussard, J.* 2000.
- Foulds, K. W. H.* Resonant-cavity measurements of the relative permittivity of a d. c. discharge. 671.
- Foulkes, P.* General thermodynamic theory of the equation of state. 214.
- Fourage, R. et Miramond, L.* Étude du coefficient de multiplication ionique dans des compteurs remplis de CO_2 . 1974.
- Fournet, D. M. and Widgoff, M.* Interactions of K^- -mesons in nuclear emulsion. 2396.
- *s. Hoff, Edwin L.* 2353.
- , *G.* Théorie des fluides et prévision du rayonnement X diffusé. 1008.
- Fournier, Georges.* Répartition et les caractéristiques des nuclides. 2004.
- , *Mme M.* Cinétique des réactions primaires en électrolyse étudiée à l'oscillographe cathodique par la méthode polarographique. 830.
- Fowler, Charles A. jr. and Fryer, Edward M.* Magnetic domains in thin films of nickeliron. 1842.
- , *E. C. s. Morris, T. W.* 1375.
- *s. Walker, R. M.* 941, 1133.
- , *J. F. and Farmer, F. T.* Conductivity induced in insulating materials by X-rays. 292.
- , — Conductivity induced in mica by X-rays. 1038.
- , *J. L. and Johnson, C. H.* Differential elastic scattering cross section for neutrons on nitrogen. 980.
- *s. Cohn, Hans O.* 1596.
- , *J. M., Hanna, S. S. and Owen, G. E.* $\text{Be}^9(\text{n}, 2\text{n})\text{Be}^8$ reaction. 959.
- , *John F.* Design of a fluorescence meter for interstitial therapy, and practical design of instrument. 1275.
- , *P. H. and Ortel, W. C. G.* Associated production of a heavy meson and a hyperon. 950.
- and *Perkins, D. H.* Associated production of a χ -meson and a Σ -particle in a nuclear disintegration. 562.
- *s. Davies, J. H.* 763.
- , *E. G. s. Lee, R. J.* 1045.
- , *T. K.* Mesonic vs nonmesonic hyperfragment decay. 2351.
- and *Hopkins, J. I.* Alpha resonances in aluminum. 1541.
- , *W. A. s. Barnes, C. A.* 581.
- *s. Christy, R. F.* 48.
- *s. Peterson, R. W.* 409.
- *s. Webb, T. S.* 601, 1588.
- , *W. B., Shutt, R. P. Thorndike, A. M. and Whittemore, W. L.* Meson production in n-p collisions at cosmotron energies. 45.

- Fowler, W. B., Shutt, R. P., Thordick, B. M. and Whittemore, W. L. Production of heavy unstable particles by 1.37-Bev pions. 1131.
- s. Block, M. M. 938, 1753.
- s. Eisberg, L. M. 979.
- s. Morris, T. W. 1375.
- Maenchen, George, Powell, Wilson M. Saphir, George and Wright, Robert W. Multiple pion production in n-p collisions at the bevatron. 1528.
- s. Maenchen, George. 1753.
- s. Wright, Robert W. 1797.
- Fowles, G. R. Interference measurements in the spectrum of mercury. 1396.
- Fowweather, F. Crystal structure of m-tolidine. 2067.
- Fox, A. G. Gyro model of electron behavior in ferrites. 2505.
- Miller, S. E. and Weiss, M. T. Behavior and applications of ferrites in the microwave region. 2178.
- , Benum W. s. Littman, Armand. 2226.
- , David and Schnepf, O. Exciton bands in crystalline benzene. 627.
- , H. W., Hare, E. F. and Zisman, W. A. Wetting properties of organic liquids on high energy surfaces. 2444.
- , J. H. P. and Lambert, J. D. Second virial coefficients of mixed organic vapours. 1962.
- , John D. and Axel, Peter. Photoneutron effect in Zr^{90} very near threshold. 1354.
- s. Axel, Peter. 585.
- , J. G. s. Fields, T. H. 563.
- s. Sutton, R. B. 417.
- , M. et Alexander, P. Post-effets dans la polymérisation des solutions aqueuses d'acide methacrylique amorcée par les rayons X. 637.
- s. Alexander, P. 2081.
- Reactor for research. 2347.
- , R. s. Wanick, R. W. 1353.
- , R. E. Negative-ion formation in iodine by electron capture. 836.
- s. Hickam, W. M. 996.
- , T. G. and Loshaek, S. Viscosity-molecular weight relationship for long chain polymers in bulk or in concentrated solution. 1412.
- , — Influence of molecular weight and degree of crosslinking on the specific volume and glass temperature of polymers. 2440.
- Fox, William M. and Hazzard, George W. Velocity of one megacycle ultrasonic waves in benzene and toluene solutions of polystyrene. 2301.
- Foxwell, D. G. s. Foglesong, G. M. 403.
- Foz, O. R., Banda, J. F. G. und Masiá, A. P. Molekularassoziation in Alkohol-dämpfen. 788.
- Fraenkel, George K. Dielectric constants of solutions of rotating particles. 482.
- , L. E. Flow of rotating fluid past bodies in a pipe. 735.
- Fränz, Kurt. Signale gegebener Dauer und kleinster spektraler Breite. 846.
- Fraga, D. W. s. Rotariu, G. J. 1099.
- Francel, R. J. s. Judson, C. M. 1187.
- Franchetti, S. Problems of film formation and flow in liquid helium II. 1409.
- Franchi, C. M. s. Robertis, E. de. 2222.
- Francis, G. Toraldo di. Espaces de Riemann en optique. 688.
- Confection doublets. 1449.
- Congrès International sur les problèmes d'optique moderne. Florence, 10-16 septembre 1954 mit den Themen Optik und Informationstheorie. Nichtklassische Systeme für das Zustandekommen des Bildes. Dreidimensionen und anamorphe Systeme. Aspherische Flächen. Optische Probleme des Fernsehens. Netzhautprobleme. 1491.
- Resolving power and information. 1676.
- s. Carrara, Nello. 1093.
- s. Ercoles, Anna Maria. 2225, 2554.
- s. Ronchi, Laura. 1876.
- Francis, G. Growth of electrodeless discharges in hydrogen. 146.
- and Engel, A. von. Origin of streamers in spark discharges. 2488.
- , J. R. D. Aerodynamic drag of a free water surface. 891.
- , N. C. s. Brueckner, K. A. 1350, 1786.
- s. Eden, R. J. 539, 1346.
- Franck, J. P. und Hertz, H. G. Messungen der kritischen Übersättigung von Dämpfen mit der Diffusionsnebelkammer. 930.
- , U. F. und Meunier, L. Gekoppelte periodische Elektrodenvorgänge. 2482.
- und Weil, K. Korrosion des passiven Eisens in Schwefelsäure. 2218.
- Francken, J. C. und Benning, H. Zwischenbildikonoskop. 1453.
- François, P. E. s. Dahanayake, C. 561.

- François s. Davies, J. H.* 763.
- Françon, M.* Application des tubes conducteurs de lumière dans les instruments d'optique. 1255.
- Frank, F. C. and Nicholas, J. F.* Stable dislocations in the common crystal lattices. 260.
- and *Stroh, A. N.* Theory of kinking. 2423.
- , *Helmar.* Statistische Gleichrichterkennlinie von Germanium p—n Übergängen. 1857.
- , *H. P. and Mark, H.* Osmotic measurements on polystyrene solutions. 453.
- and *Ullman, Robert.* Determination of dissymmetry of scattering in colored solutions. 1199.
- , *R. M. and Gammel, J. L.* P-He³ interaction. 1376.
- , — Elastic scattering of protons by He³ and T. 1590.
- , — T-T interaction. 2033.
- , — and *Watson, K. M.* Optical model potential for pion-nucleus scattering. 1604.
- , *V.* Hall coefficient and resistivity of α - and β -brass from 20-600°C. 1426.
- , *W. J. s. Bandtel, K. C.* 1342.
- , *Wilson J. s. Madey, Richard.* 390.
- Franke, Herbert W.* Spannungstensor in der Wellenmechanik. 3.
- Strömungsmodell der Wellenmechanik. 2265.
- Frankel, Sherman.* Effect of spin-orbit interaction on photonuclear electric dipole absorption. 1775.
- s. *Coburn, Horace H.* 1372.
- s. *Feingold, Arnold M.* 388.
- s. *Goldberg, Norman.* 2029.
- Frankfeld, K. s. Oberst, H.* 2304.
- Frankl, D. R.* Electroluminescence of zinc sulfide single crystals. 1688.
- Franklin, E. B.* Solution of gas in oil during transformer filling. 1054.
- , *J. L.* Calculation of the heats of formation of gaseous free radicals and ions. 26.
- , *S. G.* Vacuum ultraviolet spectrometer of compact design. 854.
- Franks, A.* Optically focusing X-ray diffraction camera. 793.
- and *McLean, D.* Polygonization in copper. 866.
- Franzon, Karl D. s. Brown, Callaway.* 2280.
- Frantz, F. S. jr. s. Fleeman, Jerome.* 1977, 2557.
- Franz, W.* Theorie der elektrischen Leitvorgänge in Halbleitern und isolierenden Festkörpern bei hohen elektrischen Feldern. 1023.
- Symposium über elektromagnetische Wellentheorie in Ann Arbor. 1291.
- Berechnung des elektrischen Durchschlags durch feste und flüssige Isolatoren. 2497.
- Existenz der Zener-Emission. 2116.
- und *Galle, Raimund.* Semiasymptotische Reihen für die Beugung einer ebenen Welle am Zylinder. 1244.
- Franzen, W., Huber, P. und Schellenberg, L.* Koinzidenzanordnung zur Erzeugung monochromatischer Neutronen mit der (d,d)-Reaktion. 760.
- , — Recoil-coincidence method for producing mono-energetic d-d neutrons. 1125.
- s. *Ajzenberg, Fay.* 413.
- Franzinetti, C. s. Chamberlain, O.* 2003.
- s. *Davies, J.* 1090.
- Fraser, G. J. s. Ellyett, C. D.* 1481.
- , *J. S.* Angular correlation of the prompt fission neutrons. 2017.
- and *Milton, J. C. D.* Gamma-gamma directional correlation in Er¹⁶⁶. 1154.
- s. *Milton, J. C. D.* 1153.
- , *R. D. B.* 1076.
- Birefringence and elasticity in keratin fibres. 2441.
- , *R. P.* High speed photography in fluid kinetics. 158.
- s. *Dombrowski, N.* 315.
- Frauenfelder, H. s. Lawson, J. S. jr.* 76.
- Frawley, Joanna s. King, Gilbert W.* 1063.
- Fray, S. J. s. Roberts, L. M.* 2194.
- Frazer, B. C. Danner, H. R. and Pepinsky, R.* Singlecrystal neutron analysis of tetragonal BaTiO₃. 1660.
- and *Pepinsky, Ray.* X-ray analysis of the ferroelectric transition in KH₂PO₄. 298.
- Frech, Maurice F. s. Wise, Henry.* 1964.
- Fred, M. s. Brody, J. K.* 430.
- Freden, Stanley C. and Ticho, Harold K.* Capture of negative K mesons. 1338.
- Fredrikse, H. P. R. s. Blunt, R. F.* 1224.
- s. *Hosler, W. R.* 1036, 1434.
- Freed, Simon and Sancier, Kenneth M.* Photochemical activity of salts of uranium in solutions at the temperature of liquid nitrogen. 1257.

- Freedman, Arthur J. and Anderson, Ernest C.* Low-level counting techniques. 1975.
- *s. Kahn, Milton.* 579.
- , *M. S., Porter, F. T., Novey, T. B. and Wagner, jr. F.* Nonunique first forbidden beta transitions in Re^{186} . 1370.
- *s. Magnusson, L. B.* 1160.
- *s. Porter, F. T.* 595, 1369.
- , *S. J. s. Juretschke, H. J.* 2112.
- Freeman, Burton E. s. Hill, David L.* 401.
- , *G. P. and Velden, van der H. A.* Differences between counting and non-counting diamonds. I. Counting properties and spectral transmission. II. Birefringency and luminescence. 1979.
- , *J. M. s. Burcham, W. E.* 2012.
- Inelastic neutron scattering in F^{19} . 1561.
- , *Robert D. and Searcy, Alan W.* Calculation of the fraction of effusing molecules which strike a collector plate above a channel hole. 1514.
- Freemantle, R. G., Prowse, D. J. and Rotblat, J.* Scattering of 9.5-Mev protons by nitrogen. 416.
- , *Hossain, A. and Rotblat, J.* Scattering of 9.5-Mev protons by neon and argon. 409.
- Freese, E.* Many-point correlation-functions in quantum field theory. 187.
- Fregeau, J. H. and Hofstadter, R.* Inelastic electron scattering from carbon at 188 Mev. 1171.
- , — High-energy electron scattering and nuclear structure determinations. III. Carbon-12 nucleus. 1598.
- Frei, Adolfs. Köster, Werner.* 2545.
- Freier, G. D. s. Simmons, B. E.* 1790.
- , *H.-J. s. Kortüm, G.* 215, 380.
- , *P. S. s. Naugle, J. E.* 395, 1389.
- Freisleben, H. C.* Funkortung und Wellenausbreitung. 2579.
- Strahlenbrechung in geringer Höhe über Wasseroberflächen. 2583.
- *Zu K. Brocks.* 2583.
- *s. Brocks, K.* 2583.
- Geophysikalische Folgerungen aus Kimmtiefenbeobachtungen. 2583.
- Freistadt, Hans.* Connection between recent theories of Bohm, de Broglie, Dirac and Schrödinger. 5.
- Freiwald, Heinz et Ude, Hans.* Ondes explosives sphériques dans les mélanges d'acétylène et d'air. 31.
- Freiwald, Heinz et Ude, Hans.* Initiierung kugelförmiger Detonationswellen in Gasgemischen. 925.
- Frémiot, Charles s. Bouix, Maurice.* 1057.
- Fremlin, J. H.* Helium 3 reactions in nuclear photographic emulsions. 2363.
- *s. Chalklin, L. P.* 2037.
- French, A. P. s. Cohen, A. V.* 2382.
- , *J. B. and Raz, B. J.* Deuteron reactions and the j-j coupling shell model. 1139.
- *Halbert, E. C. and Pandya, Sudhir P.* Intermediate coupling shell model for Be^9 . 1763.
- *s. Auerbach, T.* 1353.
- Frenkiel, François N.* Meeting of the Division of Fluid Dynamics held at Old Point Comfort and Langley Aeronautical Laboratory, Virginia, November 22-24, 1954. 2.
- Frerichs, Rudolf.* Optical glasses with good transparency in the infrared. 338.
- Fresco, James, Jetter, Evelyn and Harley, John.* Radiometric properties of the thorium series. 2009.
- Fretter, W. B. and Friesen, E. W.* Cascade decay of a negative hyperon. 403.
- , — *Kepler, G. E. and Lagarrigue, A.* K particles. 1134.
- , —, — Momentum and ionization measurements on charged V-particles. 1334.
- *s. Agyson, T. L.* 2353.
- *s. Amaldi, E.* 235.
- Freudenberg, K.* Nachlaß von Robert Wilhelm Bunsen. 894.
- und *Schuhmacher, G.* Ultraviolett-Absorptionsspektren von künstlichem und natürlichem Lignin sowie von Modellverbindungen. 2412.
- Freund, H. s. Loebner, E. E.* 1264.
- , *Michael und Vámos, Andreas.* Mikroviscosimeter. 2286.
- , *R. E. s. Schwertz, F. A.* 1263.
- Freundlich, W. et Claudel, B.* Préparation et propriétés de l'hydrure de magnésium. 1813.
- Frey, H. M.* Catalytic effect in the oxidation of carbon. 1512.
- *Danby, C. J. and Hinshelwood, Sir Cyril.* Intramolecular isotope effect in the pyrolysis of $1\text{-}^{13}\text{C}$ propane. 1124.
- , *J. s. Kornetzkii, M.* 1897.
- Freyer, Günter.* Röntgenographische Untersuchung verschiedener Asbestarten. 1690.

- Frey mann, R. s. Rohmer, R.* 2070.
 — Absorption dipolaire de Debye. 1660.
Freytag. Latentes Bild und Theorien seiner Entstehung. 1068.
 —, *H.* Rechnerischer Ausgleich von Meßkurvenscharen. 904.
Fricke, W. Hans Kienle 60 Jahre. 182.
Fried, B. D. and Riddell, jr. R. J. Tomonaga approximation. 366.
 — Covariant calculations of polarization in nucleon-nucleon scattering. 415.
 —, *S. M. s. Ghiorso, A.* 1322.
Friedberg, S. A. s. Darnell, F. J. 2472.
 — *s. Guthrie, G.* 1315.
Friedel, J. Absorption of light by noble metals and its relation to the van der Waals contribution to the cohesive energy. 261.
 — X-ray transition probabilities with special reference to K absorption in lithium. 2051.
 — Origine du ferromagnétisme dans les métaux de transition. 2103.
 — Déplacement de Knight dans les alliages. 2109.
 —, *R. A. and Pelipetz, M. G.* Special-purpose infrared cells. 1883.
Friedlander, G., Hudis, J. and Wolfgang, R. L. Disintegration of aluminum by protons in the energy range 0.4 to 3.0 Bev. 1142.
Friedlaender, Marlene. Morphological structure of anopheles A virus. 2222.
Friedlander, G. s. Baker, E. 954.
 — *s. Caretto, A. A. jr.* 1772.
 — *s. Piccioni, O.* 1518.
 —, *M. W., Keefe, D. and Menon, M. G. K.* Associated production of a meson-active $^4\text{H}_2$ fragment and a K-meson in a nuclear disintegration. 2350.
 —, —, — Production of a pair of heavy mesons in a high-energy nuclear interaction. 2353.
 — *s. Davies, J. H.* 763.
Friedman, A. M. s. Fields, P. R. 1578.
 — *s. Magnusson, L. B.* 579.
 —, *Abraham S. and Haar, Lester.* Method for high-speed machine computation of ideal gas thermal properties. 23.
 — and *Oppenheim, Irwin.* Statistical mechanical calculation of the data of state of the helium isotopes at intermediate temperatures and densities. 367.
s. Haar Lester. 380.
Friedmann, H. Solarspectrum below 2000 angstroms. 1279.
 — *s. Byram, E. T.* 1916.
 —, *Jerome I.* Phenomenological evidence for polarization of 310-Mev protons by elastic scattering in G5 emulsion. 1377.
 —, *Marvin H. s. Haller, Kurt.* 2355.
 —, *Milton, Dresner, Joseph and Hine, Gerald J.* Supervoltage (2,000 kilovolt roentgen rays) irradiation with a resonant transformer generator. 1906.
 —, *M. B. s. Ludloff, H. F.* 916.
 —, *M. H.* Nucleon anomalous moment in a cut-off meson theory. 901.
 — and *Lee, T. D.* Scattering of pions by nucleons in intermediate coupling. 245.
 —, — and *Christian, R.* Scattering of pions by nucleons in intermediate coupling. 2040.
 —, *R. M. and Crowe, K. M.* Pion pair photoproduction. 1757.
 —, — and *Motz, Hans.* Pion pair production by photons. 1526.
 — *s. Crowe, K. M.* 943, 1526, 1757.
 — *s. Motz, H.* 943.
 — *s. Motz, Hans.* 1526.
 —, *G. s. Daniel, R. R.* 225.
Friedrich, E. Zusätzliche Momente beim frei aufliegenden Balken infolge der elastischen Verformung. 1731.
 —, **W., Knipping, P. und Laue, M. v.* Interferenzerscheinungen bei Röntgenstrahlen. 535.
 — *s. Böhnecke, G.* 2257.
Fries, G. s. Israël, H. 2576.
 —, *de J. R.* Informationstheorie. 1118.
Friesen, E. W. s. Aggson, T. L. 2353.
 — *s. Fretter, W. B.* 403.
 — *s. Fretter, W. B.* 1134.
 — *s. Fretter, W. B.* 1334.
Frieser, H. s. Eggers, J. 1964.
 — Wiedergabe kleiner Details durch photographische Schichten. 690.
Frilley, Marcel. Réalisation du ciné-nucléographe de M. Le Professeur Laporte. 1120.
 — *Rosenblum, Salomon, Valadares, Manuel et Bouissieres, Georges.* Rayonnements émis au cours de la transmutation $\text{Rac} \rightarrow \text{AcX}$. I. 569. Rayonnements émis au cours de la transmutation $\text{Rac} \rightarrow \text{AcX}$. II. 1769.
Fringant, Mlle Anne-Marie. Classification spectrale de RR Lyrae. 707.
Frisch, D. H. s. Gomez, R. 1174.

- Frisch* s. *Janes*, *G. S.* 1174.
 — *s. Pugh*, *G. E.* 1174.
 — *, H. L. and Collins*, *F. C.* Diffusional processes in the growth of aerosol particles. II. 116.
 —, — Diffusional processes in the growth of aerosol particles. 2450.
 — and *Lebowitz*, *Joel L.* Simplified model of a stationary nonequilibrium process. 2333.
Fritz, *Sigmund*. Illuminance and luminance under overcast skies. 1704.
 —, *W. und Kroepelin*, *H.* Problem der Viskositätsmessungen bei nicht-Newtonschen Flüssigkeiten. 200.
 —, — Viskositätsmessungen bei nicht-Newtonschen Flüssigkeiten. 2434.
Friedmann, *H.* Diskrete Energieverluste mittelschneller Elektronen im Festkörper. 2402.
Fritze, *K. und Strassmann*, *F.* Indirekte Bestimmung der Halbwertszeit des Rubidiums. 1768.
 —, — Geologische Altersbestimmung nach der Kalium-Argon-Methode. 1984.
Fritzsche, *C.* Halbleitereigenschaften des Kupferoxyduls. VIII. Elektrische Leitfähigkeit bei 0°C als Funktion des Ortes innerhalb der Probe. 289.
 —, *H. and Lark-Horovitz*, *K.* Hall effect and resistivity of indium antimonide at low temperatures. 1036.
 —, — Electrical properties of p-type indium antimonide at low temperatures. 2125.
 — *s. Lark-Horovitz*, *K.* 2124.
Fröhlich, *A. and Shepherdson*, *J. C.* Effective procedures in field theory. 713.
Fröhlich, *Fritz E. and Sitte*, *Kurt*. Mean free path for shower production by high-energy pi mesons. 989.
 — *s. Sitte*, *Kurt*. 990.
Fröhlich, *H.* Superconductivity and lattice vibrations. 283.
 — Theory of superconductivity: one-dimensional case. 283.
 — Theorie of secondary electron emission from solids. 301.
 — and *Paranjape*, *B. V.* Dielectric breakdown in solids. 843.
Fröman, *Per Olof*. Derivation of a general equilibrium equation, with two astrophysical applications. 1513.
Fröhlich, *Gerhard J. s. Othmer*, *Donald F.* 2093.
Frohmeyer, *G. und Richter*, *H.* Lichtstarkes Fokussierungsverfahren für Strukturbestimmungen mit dem Zählrohrgoniometer. 1819.
 — *Glocker*, *R. und Messner*, *D.* Wellenlängenabhängigkeit der elektrischen Leitfähigkeit von Cadmiumsulfid-Einkristallen bei Bestrahlung mit Röntgenstrahlen und γ -Strahlen. 1037.
Froment, *M. s. Epelboin*, *I.* 1866.
Frommhold, *L.* Statistik der Elektronenlawinen im ebenen Feld. 1819.
Fronsdal, *C.* Wave equations for arbitrary spin. 1716.
Frood, *D. G. and Wait*, *J. R.* Slot radiators in rectangular metal plates. 681.
Froome, *K. D.* Refractive indices of water vapour, air, oxygen, nitrogen and argon at 72 kMc/s. 1055.
 — Determination of the velocity of short electromagnetic waves by interferometry. 2505.
Frost, *Arthur A.* Delta potential function model for electronic energies in molecules. 2406.
 — and *Braunstein*, *Jerry*. Hydrogen molecule energy calculation by correlated molecular orbitals. 430.
 — and *Musulin*, *Boris*. Semiempirical potential energy functions. I. H_2 and H_2^+ diatomic molecules. 995.
 —, *Dietrich*. Elektrostatische Aufladungen von Röntgenverstärkerfolien. 1906.
 —, *D. C. and McDowell*, *C. A.* Ionization of molecules by electron impact. I. Excited states of the nitrogen molecular ion. 628.
 —, — Dissociation energy of the nitrogen molecule. 2056.
 —, *L. S. and Phelps*, *A. V.* Production and loss of excited atoms in the helium positive column. 1048.
 —, — Cumulative ionization processes in the helium positive column. 1235.
 —, *R. T. and Hanna*, *S. S.* Alpha spectrum in the decay of Li^8 . 1575.
Froula, *H. and Bowler*, *E. S. C.* Effects of hysteresis on magnification. 1686.
Frühling, *Hans-Georg und Krempel*, *Fritz*. Liechtelektrisches Farbmeßgerät nach dem Dresler-Prinzip. 2556.
Fründt, *H. J.* Grundlagen zur Berechnung von Mehrkanal-Richtfunkstrecken. 1244.

- Frügel, Frank.* Hochfrequenz-Blitzgerät für lange Blitzserien (25000/sec), sowie Anwendungen gesteuerter Einzelblitze in der Spannungsoptik. 2196.
- Frumkin, A.* Adsorptionserscheinungen und elektrochemische Kinetik. 654.
- Frush, Harriet L. and Isbell, Horace S.* Determination of carbon 14 in the terminal positions of sugars: Preparation of d-arabinose-5-C¹⁴ from d-fructose-1,6-C¹⁴. 2344.
- Fry, D. B. s. Kalmus, H.* 1077.
- , *W. F. and Swami, M. S.* K mesons and a charged hyperon produced by 3-Bev protons in emulsions. 394.
- *Schneps, J. and Swami, M. S.* Existence of a heavy K-meson or heavy hyperon. 393.
- , —, — K-mesonic decay of a slow secondary particle. 938.
- , —, — Disintegration of hyperfragments. 1754.
- , —, — Delayed disintegration of nuclear fragments. 1778.
- , —, — Disintegration of hyperfragments. II. 1994.
- , — *Snow, G. A. and Swami, M. S.* τ^+ decay with a very low energy π^- -meson. 562.
- , —, —, — $\pi - \mu$ decay with an associated electron pair. 1526.
- , —, —, — Observations of negative K-mesons and charged hyperons. 1754.
- , —, —, — Nuclear interaction in flight of a Σ hyperon. 1755.
- , —, —, — Nuclear capture of negative K mesons in emulsion. 2000.
- *s. Schneps, J.* 1994.
- Frye, jr. G. M., Armstrong, A. H. and Rosen, L.* The $B^{11}(n, \alpha)Li^8(\beta)Be^8(2\alpha)$ reaction from 12 to 20 Mev. 578.
- *Rosen, L. and Stewart, L.* Disintegration of carbon into three alpha particles by 12—20 Mev neutrons. 1540.
- Fryer, Edward s. Fowler, Charles A. jr.* 1842.
- Fryling, Charles F. and Follett, Archie E.* Oxidants for initiation of emulsion polymerization in antifreeze recipes at $-10^\circ C$. 450.
- Fubini, S.* Non linear integral equation in field theory. 188.
- *s. Cini, M.* 188, 1926, 2270.
- Fuchs, H.* Coefficient errors in analogue computers. 714.
- , *O.* Bestimmung der Molgewichtsverteilung durch Lösungsfraktionierung. 1833.
- Fucks, W.* Statistisches Gerät. 1921.
- *Graf, L., Mues, G. und Müller, H. G.* Zündung der elektrischen Gasentladung im homogenen Wechselfeld. 1866.
- Statistische Verteilungen mit gebundenen Anteilen. 1921.
- Fünfer, Ewald s. Appel, Hans.* 2188.
- Fürstenberg, F. s. Hachenberg, O.* 2231.
- Fürth, R.* Statistical concepts in theoretical physics. 754.
- Fueter, E.* Hermann Weyl †. 1489.
- Fugate, Jack M.* Masking technique for isolating the pupillary response to focused light. 1692.
- Fuita, J. s. Morita, M.* 1162.
- Fujii, S., Iwadare, J., Otsuki, S., Taketani, M., Tani, S. and Watari, W.* Meson theory of nuclear force. 2360.
- , *T. s. Kimura, R.* 1273.
- Fujiki, Yoshibumi and Suganuma, Ryōji.* Lattice anomaly of bismuth film deposited from its vapour. 2092.
- Fujimoto, Yoichi and Yamaguchi, Yoshio.* Test of charge independence by the nuclear reactions. 2349.
- *Hayakawa, Satio and Nishijima, Kazuhiko.* Theory of rearrangement collisions. 1388.
- *s. Burge, E. J.* 773.
- *s. Dahanayake, C.* 561.
- Fujimura, Tadao s. Torizuka, Yosiharu.* 1019.
- Fujioka, Goro.* Lateral distribution of various components in extensive air showers at sea level. 1802.
- Fujita, Francisco Eiichi.* Formation of dislocation networks in some crystal lattices. 2070.
- *s. Ogawa, Shiro.* 1205.
- , *Hiroshi and Homma, Terutake.* Non-Newtonian viscosities in dilute aqueous solutions of sodium carboxymethylcellulose. 2078.
- , *Jun-ichi and Yamada, Masami.* Upper bound of the pseudoscalar coupling constant in beta-decay. 2385.
- *s. Morita, Masato.* 1162.
- , *T. s. Kimura, R.* 1273.
- Fujiwara, Izuru.* Duffin-Kemmer algebra. 2259.

- Fujiwara, Izuru.* Wave equation for spin 1 in Hamiltonian form. 2269.
- , *Shizuo.* Formula for the melting points of inorganic compounds of type MXO. 2316.
- Fukada, Eiichi.* Piezoelectricity of wood. 2498.
- Fukano, Yasushige.* Variation in the lattice constant of evaporated potassium chloride. 1205.
- Fukuda, Kuniya.* Feed-back resonance amplifier for the infrared spectrometry. I. II. 850.
- , *Nobuyuki* and *Otake, Shuichi.* Multiple scattering of an electron in lattice. 2392.
- , *Sawada, Katsuro* and *Taketani, Mituo.* Construction of potential in field theory. 1094.
- Fukui, Kenichi, Nagata, Chikayoshi* and *Yonezawa, Teijiro.* Theory of light absorption of symmetrical polymethine dyes. 626.
- , *Kiyoshi* s. *Tomita, Kazuhisa.* 2407.
- Fukushima, E.* and *Ookawa, A.* Observation of the grain boundary in soap bubble raft. I. Static feature of the grain boundary. 2425.
- , *Madoka, Tao, Kazuhiko, Uyesugi, Yahei, Nishikori, Kiyoshi* and *Hirao, Kunio.* Ultra short wave propagation and mirage. 2509.
- , *Naoshi.* Current system for S_D -field and the Bay disturbance. 2570.
- Development and decay processes of the Bay disturbances in geomagnetic field. 2570.
- and *Ono, Hironori.* Worldwide character of the progressive change in the disturbance forces of geomagnetic bays. 2570.
- s. *Nagata, Takesi.* 2575.
- Fukuyama, Ikuo* s. *Tanaka, Kenzo.* 2423.
- Fuller, A. T.* Conditions for aperiodicity in linear systems. 197.
- Adjustment of control systems for quick transient response. 1501.
- s. *MacMillan, R. H.* 728.
- , *C. S.* and *Reiss, H.* Compound formation between lithium and boron dissolved in single crystal silicon. 1861.
- *Ditzenberger, J. A., Hannay, N. B.* and *Buehler, E.* Resistivity changes in silicon induced by heat treatment. 1028.
- Fuller, A. T.* s. *Chapin, D. M.* 2478.
- s. *Morin, F. J.* 1862.
- , *E. G.* and *Hayward, Evans.* Self-absorption or self-indication in the nuclear elastic scattering experiment. 1387.
- , *J.* Gas valve. 1722.
- , *J. C.* and *Ralph, D. C.* Angular distribution of neutrons from the reaction $D(d,n)He^3$ at 100 Kev. 972.
- , *Melvin Otis.* Disintegration of oxygen by 300-Mev neutrons. 1778.
- , *R. s. Lane, W.* 2559.
- Fulton, J. s. Eason, G.* 911.
- Fultz, D.* and *Nakagawa, Y.* Experiments on over-stable thermal convection in mercury. 748.
- Fumi, F. G.* Vacancies in monovalent metals. 445.
- s. *Chiarotti, G.* 109.
- Funatogawa, Zenya* s. *Gondo, Yasuo.* 2466.
- metals. 445.
- s. *Chiarotti, G.* 109.
- Funatogawa, Zenya* s. *Gondo, Yasuo.* 2466
- s. *Miyata, Nahonori.* 148.
- Fung, S., Pevsner, A., Ritson, D.* and *Mohler, N. K⁺ — τ^+* mass difference. 1521.
- , *S. C. s. Ritson, D. M.* 1995.
- Funk, H. L. s. Drougard, M. E.* 2496.
- Furlong, L. R.* and *Ravilious, C. F.* Low-temperature luminescence and absorption of CdS. 1262.
- Furr, A. K. s. Rohrer, R. H.* 553.
- Furrer, W.* and *Lauber, A.* Raumakustische Diffusität in Schallaufnahme- und Rundfunkstudios. 744.
- Furst, Milton, Kallmann, Hartmut* and *Brown, Felix H.* Increasing fluorescence efficiency of liquid-scintillation solutions. 36.
- Fykse, O. s. Flood, H.* 140.
- Furst, Milton* s. *Kallman, Hartmut.* 931, 1979.
- Furth, H. P.* and *Waniek, R. W.* Application of high magnetic fields to nuclear track analysis and solid state research. 757.
- Furukawa, Eiichi* s. *Nishimura, Genrokuro.* 2584
- , *George T., McCoskey, Robert E.* and *Reilly, Martin L.* Heat capacity, heats of transitions, fusion, and vaporization, and vapor pressure of octafluorocyclobutane. 211.

- Furutsu, Koichi.* Theory of diffraction of the electromagnetic wave by mountains. 2508.
- Fuschillo, N.* Inhomogeneity e. m. f. s. in thermoelectric thermometers. 1314.
- Thermoelectric effects due to stationary and moving asymmetrical temperature gradients in mercury. 2171.
- Critical study of the asymmetrical temperature gradient thermoelectric effect in copper and platinum. 2499.
- Fuson, Nelson, Josien, Marie-Louise and Lawson, James R.* Effect of sample preparation upon the infrared spectra of polynuclear hydrocarbons. 624.
- s. *Josien, Marie-Louise.* 998, 1620.
- Futschik, F., Lintner, K. und Schmid, E.* Elektronenemission bei Phasenumwandlung. 2173.

G

- Gabillard, R. s. Grivet, P.* 1917.
- Gabler, F.* Karl Reichert †. 894.
- Positiver oder negativer Phasenkontrast? 1459.
- und *Rüker, O.* Hochleistungslampen für die Mikroskopie. 1256.
- , *Heinz.* Quantitative Untersuchungen über Echolotungen mit Magnetostriktionsschwingern. 2577.
- *Gresky, Gerhard und Wächtler, Maximilian.* Quantitative Untersuchungen über die Erhöhung der Peilgenauigkeit durch den Sichtfunkpeiler. 490.
- Gabor, D.* Photons and waves. 898.
- Nachrichtengehalt eines elektromagnetischen Signals. 927.
- Wave theory of plasmas. 2493.
- and *Jull, G. W.* Experimental evidence for the collective nature of the characteristic electron-energy losses in solids. 1180.
- and *Sims, G. D.* Theory of the preoscillating magnetron. I. 1059.
- Theory of the preoscillating magnetron. 1249.
- *Ash, E. A. and Dracott, D.* Langmuir's paradox. 1657.
- s. *Sims, G. D.* 1455.
- Gabriel, A. H. und Heddle, D. W. O.* Extension of Noar's method of calibrating plates for spectrophotometry. 2196.
- Gabrielli, I. e Verdinì, L.* Velocità di propagazione e coefficiente di assorbimento degli ultrasuoni nei liquidi mesomorfi. 921.
- Gade, D. W.* Feedback in junction transistor circuits. 652.
- Gaerttner, E. R.* Neutron interactions with matter. 981.
- Gässler, G.* Hörschwelle für Schallereignisse mit verschieden breitem Frequenzspektrum. 2224.
- Gaeta, F. S. s. Carrelli, A.* 641.
- Gaffney, J. s. Clement, J. R.* 1739.
- Gaffron, Hans und Rosenberg, Jerome.* Rückreaktionen bei der Photosynthese 1905.
- Gahlen, W.* Dosimetrie dreidimensionaler Gammastrahlenquellen mit Kadmiumsulfid-Kristall sowie mit mathematischem Diagramm. 1079.
- Gailloud, M. s. Rosselet, Ph.* 1999.
- Gaines, jr. George L. and Thomas, Henry C.* Adsorption studies on clay minerals. II. Formulation of the thermodynamics of exchange adsorption. 2331.
- Gait, J. J. und Spearman, F. R. J.* Simulators. 536.
- Gaizaukas, V. und Welsh, H. L.* Infrared absorption in gaseous, liquid and solid carbon dioxide induced by intermolecular forces. 623.
- Gajewski, Fritz* 70 Jahre. 894.
- Galanin, M. D.* Einfluß der Konzentration auf die Lumineszenz von Lösungen. 1889.
- Gulatry, Louis. Vodar, Boris et Robin, Stéphane.* Considérations sur la perturbation par un gaz comprimé du spectre de vibration-rotation d'une molécule polaire. 1618.
- s. *Coulon, Roger.* 2057.
- Galbraith, W. and Jelley, J. V.* Light-pulses from the night sky and Čerenkov radiation. I. 708.
- and *Whitehouse, W. J.* Interaction of negative μ -mesons with uranium nuclei. 2013.
- s. *Jelley, J. V.* 886.
- s. *Whitehouse, W. J.* 2020.
- Gales, R. S.* Techniques for noise measurement and evaluation of data. 2299.
- Galkin, A. A. und Bezuglyj, P. A.* Kinetik der Zerstörung der Supraleitfähigkeit durch ein Magnetfeld. 1853.
- Gallagher, C. J.* Thermal defects in silicon. 1433.
- and *Tweet, A. G.* Plastic deformation of gold-doped germanium. 1220.

- Gallagher, J. D. s. Koontz, P. G. 385.
 —, J. J. King, W. C. and Johnson, C. M. Microwave spectrum of $N^{15}O^{16}$. 1817.
 — s. Bedard, F. D. 436.
 —, P. B. s. Eshleman, V. R. 850.
 Gallais, Fernand et Wolf, Robert. Pouvoir rotatoire magnétique et constitution de quelques molécules organiques peroxydées. 162.
 Gallas, William s. Markow, Basil. 703.
 Galle, Raimund s. Franz, Walter. 1244.
 Gallet, R. M. Aerodynamical mechanisms producing electronic density fluctuations in turbulent ionized layers. 2572.
 Galletaud, Mlle C. s. Paquot, C. 2316.
 Galley, Robert L. Flow-rate measurement. 1739.
 Gallissot, François. Transformation infinitésimales et intégration des équations différentielles de la mécanique. 371.
 Gallmann, André s. Gorodetzky, Serge. 74.
 Gallone, S. s. Businaro, U. L. 1138.
 Galonsky, A. and Judish, J. n-p scattering at 17.9 Mev. 1380.
 — —, J. P. Angular distribution of n-p scattering at 17.9 Mev. 1596.
 — and McEllistrem, M. T. Energy levels of Li^6 . 65.
 — — Energy levels of Li^6 from the deuteron-helium differential cross sections. 960.
 — Douglas, R. A. Harberli, W. McEllistrem, M. T. and Richards, H. T. Deuteron-helium differential scattering cross sections. 959.
 — s. Johnson, C. H. 1373.
 Galperin, B. Saurel, J. Lecocq, A. et Vodar, B. Repérage à distance de petits déplacements dans un milieu soumis à une pression hydrostatique élevée. 1723.
 Gall, J. K. s. Bozorth, R. M. 2456.
 — s. Yager, W. A. 2461.
 Galvão, J. P. s. Baptista, A. M. 1346.
 Gamba, A. Uncertainty relation. 1926.
 — Information theory and knowledge: zu D. K. C. MacDonald. 2335.
 — s. Farinelli, U. 1961.
 Gambling, W. A. Glow-to arc transitions in the column of the high-pressure glow in hydrogen. 1049.
 Gammel, J. F. s. Frank, R. M. 2033.
 —, J. L. s. Frank, R. M. 1376, 1590, 1604.
 Gamo, Hideya. Faraday rotation of waves in a circular waveguide. 2510.
 Gamon, A. s. Havemann, R. 854.
 Gamow, G. Expanding universe and the origin of galaxies. 2237.
 Gams, H. Vegetations- und Klimageschichte der nord- und mitteleuropäischen Interglaziale. 1704.
 Ganguly, S. Production of mesons in nucleon-nucleon collisions. 2350.
 Gani, J. and Moran, P. A. P. Solution of dam equations by Monte Carlo methods. 2579.
 Gans, François. Lagrenaudie, Jean et Seguin, Paul. Préparation et les propriétés d'arséniures semi-conducteurs. 1649.
 Gaposchkin, Sergei. Problem von β Lyrae. 2234.
 Garbeck, Hans s. Geller, Werner. 1897.
 García-Blanco, S. y Gomis, Srta V. Estructura de ditionato de bario bihidratado. II. Simetria, grupo espacial y coordenadas del atomo pesado. 629.
 Garden, Linda A. and Kington, G. L. Thermodynamics of intracrystalline sorption. I. Models of the sorbed state. 926.
 — — and Laing, W. Thermodynamics of intracrystalline sorption. II. Argon in chabazite. 926.
 Gardiner, V. s. Hoffman, Joseph G. 171.
 Gardner, A. L. s. Kunkel, W. B. 1232.
 — Measurements of electron density in long-lived nitrogen afterglows. 671.
 —, F. T. and Hill, R. D. Gap density measurements in nuclear emulsions. 756.
 —, Irvine Clifton. Frederic Ives Medalist for 1954. 1.
 —, J. W. Transport of energy by knock-on electrons. 599.
 — Gelman, H. and Messel, H. Numerical calculations on the fluctuation problem in cascade theory. 247.
 — and Takiguchi, Robert. Method of recording time on a roentgenogram. 2228.
 Garden, Robert. Segmented-mirror solar furnace for high-intensity thermal radiation studies. 725.
 Garilli, C. M. s. Debenedetti, A. 989.
 Garfinkel, Samuel B. s. Wexler, Arnold. 2332.
 Garfunkel, M. P. and Varnerin, jr. L. J. Anomalous skin effect at low frequencies. 1213.
 — s. Corak, William S. 922.

- Garg, Satya Narian.* Importance of $v_{11e_{12}}$ (849) vibration of benzene in determining the structure of monosubstituted benzenes. 2059.
- Garino-Canina, Vittorio.* Absorption de l'ultraviolet dans le quartz et la silice vitreuse. 261.
- Défauts d'homogénéité de la silice vitreuse. 263.
- Silice vitreuse. 1410.
- Silice vitreuse. III. 1830.
- Garland, G. D.* Gravity measurements in North America with the Cambridge pendulum apparatus. II. 1085.
- Gravity measurements in North America with the Cambridge pendulum apparatus. 1283.
- Garlick, G. F. J.* Luminescence of inorganic phosphors. Konferenz in Cambridge vom 7. bis 10. April 1954. 2257.
- *s. Halperin, A.* 476.
- Garner, F. H. Skelland, A. H. P. and Haycock, P. J.* Speed of circulation in droplets. 206.
- *L. B. s. Branson, Herman.* 1813.
- *W. E. s. Derry, R.* 289.
- Garnier, René.* Observations sur la communication: Sur la rotation spatiale associée à un cycle de Lorentz. 1923.
- Garren, A.* Coulomb interference effects in proton-proton scattering. 602.
- Coulomb interference in high-energy proton-proton scattering. 2389.
- Garreta, O.* Lumière de recombinaison sur le germanium. 1218.
- Garrett, C. and Whyte, G. N.* Build-up measurements on cobalt-60 gamma radiation in iron and lead. 91.
- *C. G. B.* Thermal conductivity of potassium chrome alum at temperatures below one degree absolute. 1960.
- and *Brattain, W. H.* Self-powered semiconductor amplifier. 136.
- *M. W. s. Elmore, W. C.* 117.
- Garrido, L. s. Waniek, R. W.* 1353, 1539.
- Garrison, J. D. s. Morris, T. W.* 1375.
- *s. Chamberlain, Owen.* 1375.
- Garrod, R. I.* Anomalous interplanar spacings in evaporated deposits of face-centred cubic metals. 2092.
- Garrow, E. C. s. Becker, J. H.* 1004.
- Garstang, R. H.* Effect of configuration interaction on forbidden line strengths. 781.
- Garstens, M. A. and Kaplan, J. I.* Low-field magnetic resonance. 1423.
- Gartenhaus, S.* Two-nucleon potential from the cut-off Yukawa theory. 188.
- Two-nucleon potential from the cut-off Yukawa theory. 1532.
- Gartmann, H.* 6. Internationaler Astronautischer Kongreß in Kopenhagen. 1490.
- Raketen im Internationalen Geophysikalischen Jahr. I. Aufgaben, Ziele, Mittel, Möglichkeiten. 1310.
- Garton, W. R. S. and Rajaratnam, A.* Levels of the p^2 -configuration in the arc spectra of Zn, Cd and Hg. 780.
- Garwin, R. L.* Thermalization of positrons in metals. 560.
- Gáspár, R.* Analytisches Näherungsverfahren zur Bestimmung von Eigenfunktionen und Energieeigenwerten von Atomelektronen. I. 366.
- Verhalten der statistisch berechneten Elektronendichten in der Nähe der Atomkerne. 1299.
- Gasson, D. B.* Four-point probe apparatus for measuring resistivity. 1217.
- Gast, Theodor.* Steigerung von Empfindlichkeit und relativer Genauigkeit der elektrischen Mikrowaage. 1725.
- Gasting, N. L. s. Wergunass, F. I.* 330.
- Gates, Allan A. s. Hursh, John B.* 2230.
- *J. W.* Reverse-shearing interferometry. 1462.
- Gatti, E. s. Barabaschi, S.* 755.
- *s. Cottini, C.* 1972.
- Gatto, R.* Phenomenological treatment of the decay of light hyperfragments. 392.
- Double pion production in nucleon-nucleon collisions. Selection rules for production near the threshold. 392.
- Angular correlation in cascade decay. 762.
- Capture and annihilation of anti-protons. 1759.
- Charge properties of the weak decay interactions of the new particles. 1996.
- Method for determining the spins of the Σ and of the Λ . 1999.
- Gaudin, A. M. and Bergna, Horacio E.* High frequency induction furnace in the determination of radiocarbon. 231.
- Gaunt, J.* Force constants and bond lengths of some inorganic hexafluorides. 254.
- Gaur, H. C. s. Khosla, B. D.* 1656.
- *s. Ramaiah, N. A.* 298, 1656, 1867.

- Gaus, H. und Schulten, R. Zusammenhang der Temperatur und der Leistung eines Reaktors mit der Reaktivität und der Kühlung. 234.
- Gavreau, V. et Miane, M. Générateurs d'ultrasons dans l'air, à cylindres, pistons, sphères et cubes vibrants. 1954.
- s. Canac, F. 1738.
- Gay, Helen. Serial sections for electron microscopy. 1889.
- Gaydon, A. G. Green and orange band spectra of CaOH, CaOD and calcium oxide. 254.
- and Moore, N. P. W. Spectra of cool flames and pre-ignition glows. 1116.
- — and Simonson, J. R. Chemical and spectroscopic studies of blue flames in the auto-ignition of methane. 1321.
- Gayford, M. L. Design of high fidelity microphones. 1737.
- Gayhart, E. L. s. Olsen, H. L. 1966.
- Gayther, D. B. Mean lifetime and some properties of Θ° -particles: correction to previously published data. 563.
- Geballe, R. s. Burch, D. S. 1048.
- s. Reeves, M. L. 142.
- , T. H. and Hull, G. W. Seebeck effect in single crystal silicon. 1030.
- — Seebeck effect on silicon. 1432.
- s. Hrostowski, H. J. 1860, 2130.
- s. Hull, G. W. 1030.
- s. Morin, F. J. 1427.
- Gebauer, Rudolf und Ohl, Günther. Verschiedenheit der Intensitätsdissymmetrie der Stark-Effekt-Aufspaltung im Gegen- und Gleichfeld. 2050.
- Gebbie, H. A. Excess noise and trapping in germanium. 2128.
- and Blodgett, K. Surface trapping in germanium. 2132.
- and Kiely, D. G. Dielectric constant and loss of amorphous selenium at a wavelength of 3 cm. 842.
- Gebert, F. s. Schulz, G. V. 2436.
- Gebhardt, Erich. Becker, Manfred und Dorner, Stefan. Eigenschaften metallischer Schmelzen. VII. Innere Reibung von flüssigem Aluminium und Aluminiumlegierungen. 2545.
- Gee, A. E. s. Yoder, P. R. jr. 1458.
- Geels, B. H. Private automatic branch exchange system UB 49. 2502.
- Geer, E. H. Nelson, E. B. and Wolicki, E. J. Alpha-alpha angular correlation in $B^{11}(p, \alpha\alpha)He^4$. 965.
- Geer, E. H., Nelson, E. B., and Wolicki, E. J. Alpha-alpha angular correlations in $B^{11}(p, \alpha\alpha)He^4$. 1575.
- s. Nelson, E. B. 1163.
- s. Wolicki, E. A. 1790.
- , Roger L. Dimensional gaging and inspection. 1937.
- Geese-Bähnisch, Ingeborg. β -Zerfall des Rubidiums 87: Nachprüfung des Zerfallsschemas und Neubestimmung der Halbwertszeit. 570.
- Geffen, D. A. Simple nonrelativistic model for single meson production. 1717.
- Géhéniau, J. et Demeur, M. Solutions singulières des équations de Dirac, tenant compte d'un champ magnétique extérieur. 361.
- et Liesse, Mlle Claudine. Couplage spin-orbite dans des espaces riemanniens. 1926.
- Gehre, Hans und Herning, Fritz. Großgasmessung. 546.
- Geib, I. G. s. Buschert, R. 110.
- s. Craig, David. 456.
- Geiger, jr. Felix E. K band in additively colored KCl at $18^\circ K$. 447.
- F° and K centers in additively colored KCl crystals. 1825.
- , J. S. s. Graham, R. L. 1548.
- s. Hughes, V. W. 436, 2107.
- , K. W. Neutron production by cosmic rays. 2045.
- and Rose, D. C. Neutron multiplicity from spontaneous fission of uranium. 1355.
- Geil, Glenn W. Carwile, Nesbit L. and Digges, Thomas G. Influence of nitrogen on the notch toughness of heat-treated 0.3percent-carbon steels at low temperatures. 508.
- Geiringer, Hilda. Simple waves in the complete general problem of plasticity theory. 1503.
- Geiss, J. s. Eberhardt, P. 569.
- s. Ehrenberg, H. Fr. 37.
- Geisweid, Karl-Heinz s. Dieminger, Walter. 2244.
- Gelbard, Ely M. Three-body contributions to the triton binding energy. 2006.
- Gelinas, R. W. and Hanna, S. S. Search for states in Li^7 and Be^8 . 1366.
- s. Lavier, E. C. 1367.
- Geller, K. Halpen, J. and Yergin, Paul F. Photoneutron angular distributions. 1774.

- Geller, R. F. Ceramics for nuclear reactors. 936.
- , S. Crystal structure of gadolinium orthoferrite, GdFeO_3 . 629.
- , Werner und Garbeck, Hans. Kristallisation unterkühlter Metallegierungen. 1897.
- , Z. and Low, W. Attenuation of 1-cm microwaves by abnormal dc discharge in helium. 1236.
- — Amplification of 1-cm. waves in the helium negative glow. 2180.
- Gellman, H. s. Gardner, J. W. 247.
- Gell-Mann, M. and Pais, A. Behavior of neutral particles under charge conjugation. 939.
- s. Brueckner, K. A. 7.
- Geltman, Sydney. Theory of ionization probability near threshold. 781.
- Gemant, Andrew. Wärmeleitfähigkeit des Bodens. 212.
- Diffusion of radioactive gases in the ground. 1326.
- Geneux, E. Vincenz, B. Béné, G. and Extermann, R. Résonance dipolaire magnétique à 3,245 et 12,67 Mc/s sur des atomes de sodium orientés optiquement. 97.
- Génin, Jeannine s. Philbert, M. Georges. 1769.
- Genna, S. and Laughlin, J. S. Absolute calibration of a cobalt-60 gamma-ray beam. 1982.
- Gent, A. N. Crystallization and the relaxation of stress in stretched natural rubber vulcanizates. 2440.
- Gentner, W. Peter Jensen †. 1290.
- und Kley, W. Geologische Altersbestimmung nach der Kalium-Argon-Methode. 933.
- und Zähringer, J. Argon- und Heliumbestimmungen in Eisenmeteoriten. 176.
- Gentry, C. H. R. s. Dell, H. A. 2484.
- Genzel, Ludwig. Spektraluntersuchungen im Gebiet um 1 mm Wellenlänge. IV. Vakuumspektrometer. H_2S - und NH_3 -Rotationsspektren. 2059.
- und Klier, Manfred. Spektraluntersuchungen im Gebiet um 1 mm Wellenlänge. III. Dispersionsmessungen am LiF. 1066.
- George, E. C. s. Daniel, R. R. 1324.
- , E. P. Observations of the nuclear interactions of a 315 MeV bremsstrahlung γ -ray beam. 1145.
- George E. C. Star production by μ -mesons underground. 2370.
- and Evans, J. Cosmic-ray events in nuclear emulsions exposed below ground. 248.
- and Shrikantia, G. S. Observations of the energy-spectrum of the cosmic radiation below ground. 2400.
- , J. s. Walser, M. 1964.
- , P. Hanaia, G. I. H. and Irvine, D. H. Entropies of complex ions in aqueous solution. 2310.
- , T. H. s. Schlier, R. E. 638.
- , W. Barber, W. and Reagan, D. Absolute cross section for the reaction $\text{C}^{12}(\gamma, n)\text{C}^{11}$. 576.
- , W. D. Need for a new type of frequency and time standard. 2560.
- s. Barber, W. C. 406, 1799.
- s. Brown, K. L. 1384.
- Gerber, Eduard A. Methods for measuring the constants of piezoelectric vibrators. 2453.
- , H. J. Muñoz, M. Garcia and Maeder, D. Beta decay of Ne^{23} . 1579.
- Gere, E. A. s. Feher, G. 1856.
- Gergely, Gy. Band-width problems in the investigation of relaxation processes. 2537.
- s. Valkó, I. P. 2537.
- Gerhart, J. B. s. Naumann, R. A. 69.
- Gerholm, T. R. and Waard, de H. Half-life of the 163 keV excited state in $^{139}\text{lanthanum}$. 1783.
- s. Waard, H. de. 2381.
- Gerischer, H. und Mehl, W. Mechanismus der kathodischen Wasserstoffabscheidung an Quecksilber, Silber und Kupfer. 1042.
- Methoden zur Untersuchung der Kinetik von Elektrodenprozessen. 656.
- s. Jaenicke, Walter. 296.
- Gerjuoy, E. and Stein, S. Rotational excitation by slow electrons. 968.
- Rotational excitation by slow electrons. 1000.
- Rotational excitation by slow electrons. II. 1623.
- Gerke, R. H. Second-order transition temperature of butadiene copolymers. 1011.
- Gerlach, W. Stellung der Technik zu Wissenschaft und Kultur. 893.
- Gerlich, D. s. Many, A. 1431.
- Germagnoli, E. s. Bisi, A. 411, 1979.

- Germer, L. H. and Boyle, W. S. Short arcs. 840.
- Anode and cathode arcs. 2504.
- s. Kistiuk, P. 839.
- Germey, K. und Schmellenmeier, H. Beeinflussung von festen Oberflächen durch eine ionisierte Gasatmosphäre. II. Beeinflussung von Zinkkathoden in einer Sauerstoffglimentladung. 1050.
- Gerold, Volkmar s. Berthold, Rudolf. 2064.
- Gerrard, J. H. Measurements of the sound from circular cylinders in an air stream. 21.
- Gerrens, H. Geleffekt bei der Emulsionspolymerisation von Styrol. 2080.
- s. Bartholomé, E. 1836.
- Gerritsen, A. N. s. Korringa, J. 2112.
- , H. J. Data obtained with antiferromagnetic resonance in hydrated copper chloride. 2109.
- Okkes, R. Bölgel, B. and Gorter, C. J. Antiferromagnetic resonance in hydrated copper chloride at 32000 MHz. 2108.
- s. Meijer, Paul H. E. 1643.
- Gerson, N. C. Diurnal variation in auroral activity. 179.
- Radio observations of the aurora. 708.
- Gerstacker, H. s. Schäfer, Kl. 1012.
- Gerstenkorn, H. and Sauter, F. Änderung des elektrischen Widerstandes reiner Metalle am Schmelzpunkt. 1849.
- Gerzen, L. van s. Itterbeek, A. van. 2114.
- Gettner, M. E. s. Pollister, A. W. 2223.
- Geusic, Joseph E. and Williams, Dudley. Hyperfine structure in the paramagnetic resonances in solutions of manganous salts. 278.
- Gevers, M. s. Burgt, C. M. van der. 2451.
- , R. Observations microscopiques et interférométriques de figures de corrosion, et leur interprétation à l'aide des dislocations. 2219.
- Geyger, W. A. Magnetic servo amplifier. 907.
- Ghabrial, A. M. and Richardson, E. G. Acoustic streaming in liquids over a wider frequency range. 2298.
- Ghai, M. L. Pandher, B. S. and Harikishandass. Manufacture of reflector type direct solar cooker. 2275.
- Gharpurey, M. K. s. Déo, A. R. 2420.
- Gheri, H. s. Steinmaurer, R. 2401.
- Ghiorso, A. Thompson, S. G. Higgins, G. H. Seaborg, G. T. Studier, M. H. Fields, P. R. Fried, S. M. Diamond, H. Mech, J. F. Pyle, G. L. Huizenga, J. R. Hirsch, A. Manning, W. M. Browne, C. I. Smith, H. L. and Spence, R. W. New elements einsteinium and fermium, atomic numbers 99 and 100. 1322.
- Ghiorso s. Hyde, Earl K. 50.
- s. Seaborg, Glenn I. 2337.
- Ghosh, A. Kastner, J. and Whyte, G. N. Gamma-ray output of radium. 2362.
- , B. N. Evaluation of true zeta potential of the particles of a diaphragm, taking surface conductivity and phase volume ratio into account. 641.
- , D. K. s. Sirkar, S. C. 1237.
- , M. s. Baral, S. S. 2571.
- , N. L. Theory of resistance in potential flows. I. D'Alembert's paradox and its resolution. II. Dissipation in potential motion. III. Closed wakes in two dimensions. IV. Resistance and dissipation in motions with closed wakes. 204.
- , S. s. Varma, K. K. 2449.
- , S. N. Measurement of upper atmospheric characteristics. 1911.
- Ghosh-Mazumdar, A. S. et Haissinsky, M. Dépôt de bismuth en solution de 10^{-3} à 10^{-10} N sur une cathode de mercure. 834.
- Giacomelli, G. s. Barnes, S. W. 1602.
- Giacomo, P. s. Blaise, J. 857.
- Gianelli, G. s. Cottini, C. 1972.
- Giansoldati, A. Recherches magnétiques sur deux alliages du système Au-Mn. 1474.
- Giauque, W. F. s. Hornung, E. W. 1321.
- s. Sherman, R. H. 2309.
- Gibbons, J. H. Macklin, R. L. and Schmitt, H. W. V^{51} (p, n) Cr^{51} reaction as a 5- to 120-kev neutron source. 1144.
- , M. D. s. Stout, V. L. 542, 905.
- Gibbs, Julian H. Electric polarization of charged particles in square potential wells. 1300.
- Gibert, René. Thermodynamique des phénomènes irréversibles. 552.
- Gibson, A. F. Absorption of 39 kMc/s radiation in germanium. 1861.
- Granville, J. W. and Bardsley, W. Germanium point-contact transistor to operate at high ambient temperatures. 1437.
- , John B. Thermal scattering of electrons between bands in a metal. 124.

- Gibson, W. M. and Prowse, D. J. Analysis of the neutrons from ${}^7\text{Li}(\text{dn}){}^8\text{Be}$ at 880 kev. 769.
- Grottdal, T. Orlin, J. J. and Trumpy, B. Photodisintegration of the deuteron, and the measurement of γ -ray energies with photographic emulsions containing heavy water. 2017.
- s. Duke, P. J. 774.
- s. Prowse, D. J. 1980.
- s. Rotblat, J. 1977.
- Giegerl, E. and Broda, E. Emission of slow neutrons by a radium-beryllium source. 1985.
- Gielessen, Johannes und Klitzing, Kurt Hans v. Hall-Effekt und elektrischer Widerstand von In-Sb bei starken Magnetfeldern und hohen Drucken. 2113.
- Gier, Joseph T. Dunkle, Robert V. and Bevans, Jerry T. Measurement of absolute spectral reflectivity from 1.0 to 15 microns. 1885.
- Gierst, L. E. Unterscheidung der verschiedenen Elektrodenmechanismen durch Messung der Übergangszeit bei konstantem Strom in ruhender Lösung. 658.
- Giese, Clayton F. and Collins, T. L. Mass doublet measurements using a modulated magnetic field. 1749.
- Giesen, K. s. Hegemann, F. 866.
- Gifford, A. P. s. Walker, J. K. 1516.
- , J. F. s. Olson, O. L. 762.
- Gigli, A. s. Argan, P. E. 1750, 1976.
- Gilard, Pierre †. 2254.
- Gilbert, D. A. and Cohen, Victor W. Nuclear hyperfine structure interaction in 3.1-hr $\text{Cs}^{134\text{m}}$. 1807.
- — Nuclear spin and h. f. s. interaction in 3.1-hr Cs^{134} . 1807.
- s. Cohen, V. W. 1347.
- , E. N. and Morgan, S. P. Optimum design of directive antenna arrays subject to random variations. 1452.
- , F. C. Analysis of the disintegration products from the reactions of 125-Mev deuterons with lithium nuclei. 1538.
- Violet, Charles E. and Stephen White, R. Negative K-particle interactions in nuclear emulsion. II. 1758.
- s. Violet, Charles E. 1758.
- s. White, R. Stephen. 1758.
- s. Hloff, Edwin L. 2353.
- Gilbert, G. A. and Rideal, E. K. Direct estimation of the electrons involved in polarographic reduction. 2157.
- , Mitchell, Davis, Leo and Altman, David. Velocity lag of particles in linearly accelerated combustion gases. 1944.
- , T. L. Lagrangian formulation of the gyromagnetic equation of the magnetization field. 1210.
- , W. s. Salam, Abdus. 1298.
- , W. S. and Pepper, J. H. Experimental facilities and techniques used at the Berkeley 60-in. cyclotron for irradiation effects studies. 1518.
- Gilden, M. and Goldstein, L. Cyclotron resonance of electrons in gaseous discharge plasmas. 1048.
- Giles, Frederick H. Use of characteristic curves in the study of electrochemical systems. 295.
- , Peter C. s. Heckman, Harry H. 1121.
- , R. Proportional counter spectrometer for neutrons. 38.
- Gilford, C. L. S. s. Axon, P. E. 378.
- , S. R. Saito, S. and Herson, J. L. Printed circuit techniques — A miniature electrostatic generator. 222.
- Gilfrich, Hans-Paul. Anregung und Zerstörung von Leuchtstoffen durch H^+ -Ionen. 2208.
- Gill, Joseph P. High-performance research reactor. 1127.
- Gill, S. J. s. Wall, F. T. 829.
- Gillam, C. High power aerial switching. 2514.
- Gilleo, M. A. Magnetic properties of a gadolinium orthoferrite crystal. 647.
- Giller, E. B. s. Timmerhaus, K. D. 227.
- Gillert, H. Messungen an Ferrit-Ringkernen bei Magnetisierung mit etwa rechteckförmigen Feldimpulsen. 2262.
- Gillespie, G. R. and Johnstone, H. J. Particle-size distribution in some hygroscopic aerosols. 1207.
- Gillham, E. J. Preston, J. S. and Williams, Betty E. Transparent, highly conducting goldfilms. 640.
- Gillis, J. Correlated random walk. 183.
- , Richard G. s. Price, Charles C. 2412.
- Gillois, Michel s. Rumpf, Paul. 630.
- Gilly, L. J. s. Capron, P. C. 58.
- Gilman, John J. Recording tensile machine for metal monocrystals. 373.
- Giltairé-Ralyte, Lucette s. Policard, Albert. 2551.

- Gilvarry, J. J.* Thermodynamics of the Thomas-Fermi atom at low temperature. 1718.
- Solutions of the temperature — perturbed Thomas-Fermi equation. 1718.
- and *Peebles, G. H.* Solutions of the temperature-perturbed Thomas-Fermi equation. 1718.
- Maxwell's thermodynamic relations. 1920.
- Gimmi, F. Heer, E. und Scherrer, P.* Konversionselektronenkorrelation. 2385.
- *s. Heer, E.* 1359.
- Gindler, J. E. s. Fields, P. R.* 1578.
- *s. Studier, M. H.* 71.
- Ginneken, van A. J. J. and Burgers, W. G.* Habit plane of the zirconium transformation. 1008.
- Ginsberg, Irwin A. s. Goodman, Edmund N.* 697.
- Ginsburg, Leonard and Gordon, Louis.* Adapter for suction filtration directly into a volumetric flask. 2275.
- Ginther, R. J.* Sensitized luminescence of CaF_2 : (Ce + Mn). 167.
- *s. Schulman, James H.* 630.
- Ginzburg, V. L.* Theory of superconductivity. 2113.
- Ginzton, E. L. and Wadia, B. H.* Positive-ion trapping in electron beams. 2516.
- Gion, L. s. Schnepp, P.* 546.
- Giovanelli, R. G.* Reflection by semi-infinite diffusers. 1463.
- Gipper, Helmut.* Kluft zwischen muttersprachlichen und physikalischem Weltbild. 1289.
- Girardet, Bernard s. May, Serge.* 2326.
- Girlanda, Antonino.* Terremoto dello Hokaido del 4 Marzo 1952. II. Determinazione della dromocrona più probabile delle onde P_n e suo confronto con i tempi calcolati da altri ricercatori. 2565.
- Gitlin, Robert.* How temperature affects instrument accuracy. 906.
- Giuffria, Ruth s. Tripp, Verne W.* 1839.
- Giulotto, L. Chiarotti, G. and Cristiani, G.* Nuclear relaxation and quasi-crystalline structure of liquids. 2461.
- *s. Chiarotti, G.* 109.
- Giusti, A. L. s. Wall, R. F.* 1679.
- Givens, M. P. s. Carter, D. E.* 2403.
- Optical constants of copper. 687.
- *Koester, Charles, J. and Goffe, William, L.* Soft X-ray absorption of tellurium and vitreous and metallic selenium. 1610.
- Givens, M. P. s. Woodruff, Robert W.* 429.
- Givin, H. H. Farney, G. K. Hahn, T. M. and Kern, B. D.* Angular distribution of 12- and 16-Mev gamma rays from the proton bombardment of a thin boron target. 413.
- *s. Farney, G. K.* 410.
- Gjeldaker, G. s. Scharff, M.* 1136.
- Glad, Sven.* Spectrum of singly-ionized carbon, C II. 250.
- Gladwin, A. S.* Stability criteria for an electrical or mechanical system with distributed parameters. 726.
- Glättli, H. Loepfe, E. und Stoll, P.* Verstärkung schneller Impulse mit Sekundäremissionspentoden. 34.
- — Dreifach-Koinzidenzmischstufe für schnelle Impulse. 34.
- *Stoll, P. and Widmer, H.* Mechanical differentiating circuit for impulse analyzers and other similar purposes. 1972.
- Glaister, R. M.* Magnetically operated vacuum valve. 724.
- Glanzmann, Rosmarie und Signer, R.* Aminosäurebestand von Seidenfibroin und von Seidenfibroinfraktionen. 454.
- Glaser, Donald A. and Rahm, David C.* Characteristics of bubble chambers. 385.
- *D. V. s. Barrow, R. F.* 625.
- *Frank W. s. Post, Benjamin.* 1192.
- *G.* Elektrische Entladung bei stromstarken Funken. II. Rechnerische Erfassung der Funkenentladungen. 838.
- und *Sautter, D.* Elektrische Entladung bei stromstarken Funken. I. Experimentelle Ergebnisse. 838.
- *W.* Model field for electrostatic electron lenses. 1259.
- Öffnungsfehler magnetischer Elektronenlinsen. 2535.
- Foundation of a wave-mechanical theory of the electron. 7.
- Glasoe, G. N. s. Bloom, S. D.* 1383.
- Glass, Neel W. and Richardson, J. Reginald.* Radionuclides Al^{24} , P^{32} , Cl^{32} and Se^{40} . 963.
- *R. A. Carr, R. J. Cobble, J. W. and Seaborg, G. T.* Fission-spallation competition in heavy elements. 577.
- Glasser, L. G.* Automatic photoelectric (ultraviolet) analyzer for continuous chemical analysis of process streams. 158.

- Glasser, L. G.* Automatic photoelectric ultraviolet analyzer for continuous chemical analysis of process streams. 2195.
- , *R. G.* Mass measurement by multiple Coulomb scattering on stopped particles. 45.
- *Haskin, D. M.* and *Schein, Marcel.* Analysis of properties of secondary particles in nucleon-nucleon collisions at very high energy. 1356.
- — — and *Lord, J. J.* Analysis of properties of secondary particles in nucleon-nucleon collisions at very high energy. 1147.
- *s. Haskin, D. M.* 2351.
- *s. Orear, Jay.* 405.
- *s. Schein, M.* 1130, 1357, 1147.
- Glassgold, A. E.* Scattering of high-energy electrons by nuclei. 984.
- Glatzel, E.* and *Schlechtweg, H.* Näherung zur Elektronentheorie der Übergangsmetalle. 1213.
- — — Ebene r Spannungszustand im kreis-zylindrischen spröden Rohr unter konstantem Innen- und Außendruck. 2297.
- Glauber, R. J.* Deuteron cross sections at high energies. 244.
- Scattering by lattices of deformable atoms. 790.
- Time-dependent displacement correlations and inelastic scattering by crystals. 1405.
- Cross sections in deuterium at high energies. 1585.
- Deuteron stripping processes at high energies. 1592.
- *Martin, P. C.* *Lindqvist, T.* and *Wu, C. S.* Relativistic and screening effects in radiative electron capture. 1579.
- *s. Shapiro, I. I.* 244.
- *s. Zemach, A. C.* 2390.
- Glaubman, Michael J.* Radioactive decay of 65-hour Sb^{122} . 960.
- Radioactive decay of 65 hour Sb^{122} . 1153.
- Fast favored first forbidden beta transition. 1369.
- *s. Everett, A. E.* 1159.
- Glauz, R. D.* and *Lee, E. H.* Transient wave analysis in a linear time-dependent material. 2284.
- Glazer, Harold s. Bell, Barbara.* 885.
- Gleason, G. I. s. Tabern, D. L.* 1080.
- Gleichmann, Hubert.* Entkupferung des Siegerländer Spateisensteins. 1076.
- Gleissberg, W.* Daten für die mittlere Sonnenfleckenkurve. 350.
- Glemser, Oskar s. Butenuth, Gottfried.* 325.
- Glen, J. W.* Creep of cadmium crystals at liquid helium temperatures. 2285.
- Glendening, B. L. s. Schrenk, W. G.* 1273.
- Glew, D. N.* and *Robertson, R. E.* Constant temperature solubility cell or reaction vessel for a Beckman quartz spectrophotometer. 855.
- Glick, H. s. Smith, W.* 916.
- Glicksman, M.* Magnetoresistance and mobility of germanium-silicon alloys. 1433.
- and *Anderson, H. L.* Scattering of 165-Mev pions by protons. 982.
- *s. Anderson, H. L.* 1602.
- *s. Kruse, U.* 1386.
- Scattering of 187-Mev negative pions by hydrogen. 89.
- Magnetoresistance of germanium-silicon alloys. 1860.
- Gliddon, Gordon H.* Adelbert Ames jr. †. 894.
- Gliese, W.* Dichte, Hertzsprung-Russell-Diagramm und Geschwindigkeitsverteilung der Sterne. 1909.
- Glinz, C.* Darstellung physikalischer Größen in Formeln, Tabellen und auf Koordinatenachsen. 1096.
- Globus, Rudo S.* Right ear for music. 2551.
- Glocker, R.* Wirkungsgesetze schneller Elektronenstrahlen. 703.
- *s. Breilling, G.* 342, 1170, 1693, 2226.
- *s. Frohnmeyer, G.* 1037.
- Glöckner, G.* Elektromotorisches Verhalten von Glaselektroden in stark sauren Lösungen. 2483.
- *s. Schwabe, K.* 655.
- Glover, K. M.* and *Milsted, J.* Half-life of curium-242. 239.
- , *R. N. s. McNair, A.* 2371.
- Glubrecht, Hellmut.* Beziehungen zwischen Physik und Biologie. 2550.
- Gluck, S. E.* Electronic discrete variable computer. 358.
- Gluckstern, Robert L.* Analysis of electron stripping data. 618.
- Electron capture and loss by ions in gases. 1166.
- and *Hull, jr. M. H.* Polarization dependence of the integrated bremsstrahlung cross section. 1171.
- *Lazarus, J. P.* and *Breit, G.* Comparison of semiclassical and quantum-mechanical Coulomb excitation integrals for large L . 1570.

- Glueckauf, E.* Theory of chromatography. VII. Theory of two solutes following nonlinear isotherms. 457.
- Long-term aspect of fission product disposal. 1989.
- and *Kitt, G. P.* Krypton and xenon contents of atmospheric air. 1287.
- and *McKay, H. A. C.* Possible f-shell covalency in the actinide elements. 2048.
- *Barker, K. H.* and *Kitt, G. P.* Theory of chromatography. VIII. Separation of lithium isotopes by ion exchange and of neon isotopes by low-temperature adsorption columns. 402.
- Glusker, D. L.* and *Thompson, H. W.* Vibrational spectra and intermolecular association. 433.
- Gmelin, Paul* 70 Jahre. 182.
- Gnagey, L. B.* s. *Baker, W. H.* 224.
- Gnevyshev, M. N.* und *Gnevysheva, R. C.* Auftreten der Koronalinie 5302,8 Å in der Sonnen-Chromosphäre. 2231.
- Gnevysheva, R. C.* s. *Gnevyshev, M. N.* 2231.
- Gobrecht, H.* und *Speer, F.* Messung der Sekundärelektronenemission. 2172.
- *Niemeck, F.* und *Speer, F.* Herstellung von empfindlichen PbSe-Photoleitern. 135.
- Goddard, L. S.* Transition matrices occurring, in the theory of Markoff processes. 1292.
- , *Pliny E.* s. *Nail, Nelson R.* 1467.
- Godfrey, Charles S.* Comparison of H^3 and He^3 production in high-energy deuteron-deuteron collisions. 52.
- , *T. B.* s. *Swindells, J. F.* 2287.
- Godlove, I. H.* 1.
- , *T. F.* and *Carver, J. G.* Neutron time-of-flight spectroscopy with a linear electron accelerator. 556.
- *s. Carver, J. G.* 1562.
- Goebel, Charles J.* Pion-nucleon s-wave phase shifts from ps-ps with cutoff. 1603.
- *Karplus, Robert* and *Ruderman, Malvin A.* Momentum dependence of phase shifts. 1585.
- Göllnitz, W.* Torricellisches Theorem über die Ausflußgeschwindigkeit und seine Auswertung für den horizontalen Wurf. 1920.
- Goenvec, H.* s. *Lévêque, P.* 578.
- Goering, H. L.* s. *Harman, T. C.* 1653.
- Görtler, H.* Dreidimensionales zur Stabilitätstheorie laminarer Grenzschichten. 2292.
- Goertz, Günther.* Pneumatischer Differenzdruck-Meßumformer beim Einsatz in der Erdölindustrie. 1103.
- Goertzel, G.* and *Loeb, William A.* Nonuniform fuel distributions in nuclear reactors. 1127.
- Gössler, Fritz* s. *Goubau, Georg.* 1706.
- Goetz, Harald.* Elektrostriktion in Flüssigkeiten und die Erzeugung von Ultraschall auf elektrostriktivem Wege. 744.
- Götz, Helmut* s. *Torkar, Karl.* 1075.
- Götzberger, Adolf.* Kristallisation aufgedampfter Antimonschichten. 115.
- Goff, le Pierre.* Analyse statistique du fonctionnement d'un réacteur hétérogène en régime dynamique de Knudsen. 1743.
- Methodes expérimentales d'étude du mécanisme des réactions de gaz à la surface des métaux. Description d'un montage utilisant un spectromètre de masse. 1743.
- Problème de l'accommodation énergétique des molécules, dans les réactions hétérogènes de gaz sur les solides. 1743.
- Goffe, William L.* s. *Givens, M. Parker.* 1610.
- Goland, Martin.* *Wickersham, P. D.* and *Dengler, M. A.* Propagation of elastic impact in beams in bending. 14.
- Golay, M. J. E.* *Balser, M.* and *Silverman, R. A.* Hybrid coding. 1872.
- Gold, Louis.* Macroscopic aspects of neutron interaction in magnetism. 605.
- Modified distribution functions for ethylene oxide-type polymerizations. 2434.
- Molecular size distribution in the copolymerization of N-carboxyamino acid anhydrides. 2435.
- Distribution of radioactivity in labeled polymers. 2442.
- , *T.* Earth's exterior atmosphere and the counter glow. 711.
- Horizon of the steady-state universe. 882.
- s. *Blair, G. W. Scott.* 1922.
- Goldammer, R.* UKW-FM-Empfang, ohne Laufzeitverzerrung 1249.
- Goldbeck, von O.* Schutzüberzüge auf Metallen gegen Verzunderung bei hohen Temperaturen. 2549.
- Goldberg, A. E.* s. *Mitchell, G. R.* 477.

- Goldberg, Colman and Davis, R. E. Hall effect in p-type germanium. 2121.
- — Weak field magnetoresistance of n-type germanium. 2132.
- s. Davis, R. E. 1028.
- , Irwin and Janis, Allen. Transformation groups in configuration space. 362.
- s. Bergmann, Peter G. 5, 1494.
- , J. N. Gravitational field equations. 1713.
- , Jean Snover, Snyder, Hartland S. and Scott, William T. Mean-value calculations for spatial multiple scattering. 1586.
- , Joshua N. Gravitational radiation. 359.
- , Norman and Frankel, Sherman. Angular correlation measurements in Te^{121} and Te^{123} . 2029.
- Goldberger, M. s. Brueckner, K. A. 7.
- , M. L. s. Chew, G. F. 2289.
- s. Deser, S. 396.
- Use of causality conditions in quantum theory. 537.
- Causality conditions and dispersion relations. I. Boson fields. 1715.
- Goldburg, W. I. Angular distribution of gammas from Coulomb excitation of thin platinum. 1794.
- Goldenberg, J. and Lopes, J. Leite. Shell effect on photonuclear reactions. 2014.
- s. Silva, E. 1144.
- Golden, R. s. Tochilin, E. 1478.
- Goldenberg, H. Numerical evaluations of heat flow in the region bounded internally by a circular cylinder. 1317.
- Goldey, James M. and Brown, Sanborn C. Carrier effective masses in germanium. 1221.
- — Microwave determination of the average masses of electrons and holes in germanium. 1222.
- Goldfarb, A. Robert s. Saidel, Leo J. 2063.
- Goldfinger, George s. Edwards, Gerald A. 456.
- Goldhaber. Rôle de la conversion interne dans l'étude des transitions isomériques. 2386.
- , G. s. Chamberlain, O. 2003.
- s. Ritson, D. M. 1995.
- and Goldsack, Stephen J. Measurements on K particles and their decay products. 1135.
- Chupp, W. W., Goldsack, S. J., Lannutti, J. and Webb, F. Heavy meson and hyperon production at the bevatron. 1336.
- Goldberg s. Chupp, Warren W. 1336, 1522, 1756.
- s. Goldhaber, S. 1131.
- s. Iloff, E. L. 1756, 1756, 2353.
- s. Lannutti, Joseph. 1146, 1997.
- s. Webb, Francis H. 2353.
- , M. Compound hypothesis for the heavy unstable particles. II. 1519.
- Classification of nuclear isomers. 2008.
- s. Mihelich, J. W. 68, 1155.
- s. Sunayr, A. W. 1360.
- , S. Goldhaber, Gerson. Heckman, H. H. and Smith, F. M. Heavy mesons and hyperons from targets bombarded by 4.8- and 5.7-Bev protons. 1131.
- s. Alvarez, W. 393.
- s. Heckman, Harry H. 1135.
- s. Ritson, D. M. 1995.
- s. Chupp, Warren W. 1336, 1522, 1756.
- s. Iloff, Edwin L. 2353.
- s. Lannutti, Joseph E. 1997.
- s. Webb, Francis H. 2353.
- Goldhammer, P. and Feenberg, E. Coupling of $2s\frac{1}{2}$ and $1d\frac{1}{2}$ orbitals. 401.
- Coupling of nucleon orbitals. 2357.
- Goldin, L. L. and Koskarev, D. G. Synchrotron oscillations in strong-focusing accelerators. (Linear theory.) 761.
- Golding, E. W. Wind energy. 1107.
- Goldman, I. I. und Migdal, A. B. Theorie der Streuung in halbklassischer Näherung. 974.
- , J. E. s. Arrott, Anthony. 647.
- s. Guthrie, G. 1315.
- s. Pugh, Emerson William. 647.
- Goldsack, S. J. and Lock, W. O. Capture of negative hyperons. 1999.
- and Raay, van der H. B. Automatic scanner for nuclear emulsions. 1977.
- s. Abraham, M. 1759.
- s. Dilworth, C. C. 1977.
- s. Goldhaber, Gerson. 1135, 1336.
- s. Chupp, Warren W. 1756.
- s. Lannutti, Joseph. 1146.
- Goldschmidt, Bertrand. Regnaut, Pierre et Prévot, Mme Isabelle. Procédé par solvant pour l'extraction du plutonium de l'uranium irradié dans les piles. 1330.
- , H. J. s. Brand, J. A. 1472.
- Goldschmidt-Clermont, Y., Osborne, L. S. and Scott, M. Photoproduction of π^0 mesons from protons. 940.

- Goldschmidt-Clermont, Y. s. Dilworth, C. C.* 1977.
- Goldsmid, H. J.* Thermal and electrical conductivity of semiconductors. 286.
- Thermoelectric applications of semiconductors. 293.
- Thermal conductivity of bismuth telluride. 1318.
- Use of semi-conductors in thermoelectric generators. 1871.
- Goldsmith, B. J. s. Hough, J. M.* 158.
- , *G. s. Kleitman, D.* 1436.
- Goldstein, J. and Anderson, J. M.* Collision cross section of nitrogen molecules with slow electrons. 837.
- , *J. H. s. Wilcox, W. S.* 434.
- , *L. s. Anderson, J. M.* 837, 1235.
- *s. Gilden, M.* 1048.
- Theory of liquid He³. 2074.
- Origin of the lambda transition in liquid helium. 2075.
- and *Reekie, James.* Spatial distribution of atoms in liquid He⁴. 1410.
- *s. Sommers, Henry S. jr.* 420.
- , *M. McHale, J. L. Thaler, R. M. and Biedenharn, L. C.* Coulomb excitation directional correlation. 1568.
- *s. Biedenharn, L. C.* 1571.
- Goldstine, Herman H. and Neumann, John von.* Blast wave calculation. 2294.
- Goldsztaub, S. et Wey, R.* Adsorption des ions uranyles par les argiles. 113.
- — Evolution de quelques propriétés du sesquioxyde de vanadium au voisinage de ses transformations. II. Etude aux rayons X du sesquioxyde de vanadium à basse température. 2422.
- Goldwasser, E. L. Koester, J. J. jr. and Mills, F. E.* Elastic photoproduction of π^0 mesons from helium. 47.
- — — Elastic photoproduction of π^0 mesons for helium. 943.
- *Mills, F. E. and Robillard, T. R.* Direct measurement of the effect of polarization on energy loss. 1172.
- Golfand, Ju. A.* Aufbau der Streufunktion nach der Methode der Quasifelder. 187.
- Goloskie, R. s. Waniek, R. W.* 1539.
- Golovin, B. M. s. Dželepov, V. P.* 1798.
- Golub, M. A.* Shear dependence of viscosity of Alfin polyisoprene. 2433.
- Effect of shear rate on the intrinsic viscosity. 2433.
- Gombás, P.* Lösung der mit der Korrelation erweiterten Grundgleichung des statischen Atoms für von null verschiedene Drucke. 1609.
- Erweiterung der Hartree-Fockschen Gleichungen durch die Korrelation der Elektronen. 2271.
- Gombay, L.* Thermokraftvariationen bei Gelatine-Farbstoffphosphoren. 2537.
- Gomberg, H. J. Gould, S. E. Nehemias, J. V. and Brownell, L. E.* Using Co⁶⁰ and fission products in pork irradiation experiments. 875.
- — — — Economics of pork irradiation. 1278.
- Gomer, Robert. s. Inghram, Mark G.* 759, 1069.
- Gomez, R. Pugh, G. E. Frisch, D. H. and Janes, G. S.* Gamma-ray scattering by complex nuclei. 1174.
- *s. Janes, G. S.* 1174.
- *s. Pugh, G. E.* 1174.
- Gomis, Srta V. s. Garcia-Blanco, S.* 629.
- Gondet, H. s. Demon, L.* 2564.
- Gondo, Yasuo and Funatogawa, Zenya.* Temperature dependency of magnetoresistance effect of iron single crystal. 2466.
- Gongwer, C. A.* Influence of duct losses on jet propulsion devices. 1507.
- Gonser, Ulrich s. Seith, Wolfgang.* 333.
- Good, Myron L.* Phase-reversal focusing in linear accelerators. 558.
- *s. Alvarez, Luis W.* 1521.
- , *R. H. jr.* Generalization of the WKB method to radial wave equations. 1092.
- Properties of the Dirac matrices. 2266.
- , *William B. s. Ruark, Arthur E.* 1527.
- , *W. M. s. Moak, C. D.* 231, 1538.
- Goodenough, J. B. and Loeb, A. L.* Theory of ionic ordering, crystal distortion and magnetic exchange due to covalent forces in spinels. 1192.
- Theory of the role of covalence in the perovskite-type manganites [La, M(II)] MnO₃. 1625.
- Gooderham, W. J. and Hall, R. A.* Laboratory gas-flow control device. 16.
- Goodfellow, T. L. s. Caffyn, J. E.* 1654.
- Goodman, B. B.* Superconducting elements. 2113.
- *s. Cmak, B. S.* 127.
- *s. Satterthwaite, C. B.* 1023.
- *Clark.* Nuclear structure as revealed by electric excitation. 2025.

- Goodman B. B. and Norton, Gardner A. Interlocking concrete and lead blocks for radiation shielding. 2559.
- s. *Guernsey, Janet B.* 2375.
- s. *McClelland, Clyde.* 410, 590.
- s. *Mark, Hans.* 590, 2010, 2375.
- *Miyatake, Osamu.* 2005.
- *C. D. s. Blosser, H. G.* 1541.
- , *D. H. Sloan, D. H. and Trau, E.* High voltage high speed square wave surge generator. 486.
- , *E. s. Haskin, D. M.* 1993.
- , *Edmund N. Ginsberg, Irwin A. and Robinson, Miriam A.* Apparatus for measuring the electrogastrogram. 697.
- , *Lionel and Shull, Harrison.* Modification of the naive MO method. 1616.
- — Semiempirical treatment of $n-\pi$ transitions. 1616.
- , *L. S. and Wexler, S.* Nuclear spin and magnetic moment of 3.1 hr $\text{Cs}^{134\text{m}}$. 1347.
- — Nuclear spin and magnetic moment of 50-day $\text{In}^{114\text{m}}$. 1348.
- — Nuclear spin and magnetic moment of 54-min $\text{In}^{116\text{m}}$. 1790.
- — Hyperfine splitting and the sign of the magnetic moment of $\text{Cs}^{134\text{m}}$. 1806.
- , *P.* Design for a sensitive selfrecording gold-leaf electroscope. 642.
- Goodrich, Max s. *Rojo, Onofre.* 1580.
- Goodwin, D. W. Space charge phenomena in liquid dielectrics. 842
- Gora, E. Lower limit for the interaction time in photon-photon scattering. 362.
- , *E. K.* Microwave spectrum of the ozone molecules. 436.
- Gorbatscheva, N. A. Konstantinowa-Schlesinger, M. A. Teremezkaia, J. G. and Trapesnikowa, S. A. Lumineszenzzentren und die Faktoren, die auf die Herstellung von Kristallphosphoren von Einfluß sind. 1892.
- Gordon, A. R. and Kay, R. L. Anomalous adjustment of indicator concentration in moving boundary measurements of transference numbers. 2155.
- s. *Muir, D. R.* 2322.
- , *Alvin S. s. Smith, S. Ruven.* 1116.
- , *Elias and Sauero, Joseph.* Stereoscopic roentgenography. Twist stereo method. 2558.
- , *George M.* Spectrochemical analysis of gold-assay residues using the coperspark technique. 505.
- Gordon, J. P. Hyperfine structure in the inversion spectrum of N^{14}H_3 by a new high-resolution microwave spectrometer. 2060.
- *Zeiger, H. J. and Townes, C. H.* Maser-new type of microwave amplifier, frequency standard, and spectrometer. 1450.
- s. *Artman, J. O.* 785.
- , *Louis s. Ginsburg, Leonard.* 2275.
- , *Manfred.* Network theory of the gel point and the incestuous polymerization of diallyl phthalate. 2434.
- and *Grieverson, Brian M.* Viscodilatometer with applications to the Trommsdorf effect in unsaturated polyester resins. 2079.
- , *M. M.* Stripping theory and the Be^9 (p, d) Be^8 reaction. 1541.
- , *R. B. and Nowick, A. S.* Elastic modulus of X-irradiated rock salt. 1305.
- , *R. L. and Harris, G. W.* Effect of particle-size on the quantitative determination of quartz by X-ray diffraction. 1001.
- , *Sheffield and Hart, Edwin J.* γ -ray-induced deuterium gas-water exchange. 1115.
- s. *Grossweiner, Leonard I.* 2202.
- s. *Hart, Edwin J.* 612, 1988.
- , *W. L. Shaw, C. H. and Daunt, J. G.* X-ray diffraction patterns from liquid helium. 801.
- Gordon-Smith, A. C. Milliwattmeter for centimetre wavelengths. 272.
- , *G. W.* Spectral reflection characteristics of a smoked magnesium oxide surface. 317.
- s. *Preston, J. S.* 318, 318.
- Gordus, Adon A. and Bernstein, Richard B. Isotope effect in continuous ultraviolet absorption spectra: methyl bromide- d_3 and chloroform-d. 2061.
- Gordy, Walter. Spectroscopie des ondes de 1 à 5 mm. 2060.
- *Ditto, Steve J. Wyman, James H. and Anderson, Roy S.* Three-millimeter wave radiation from the sun. 1907.
- s. *Ard, William B., jr.* 278.
- s. *Blevins, Gilbert S.* 786.
- s. *Burrus, Charles A.* 436, 786.
- s. *Hill, Robert M.* 436.
- s. *Jache, Albert W.* 786.
- s. *Livingston, Ralph.* 436.
- s. *Mizushima, Masataka.* 1778.

- Goring, D. A. I. Electrophoresis and gel strength. 2221.
- and Napier, P. G. Light scattering determination of the absolute turbidity of water. 159.
- Gorman, J. G. s. Ashkin, J. 424.
- , J. W. s. Isbin, H. S. 1988.
- Gorodetzky, S. Armbruster, R. et Chevallier, P. Paires de la transition monopolaire de ^{16}O . 1793.
- — Gallmann, André. Knipper, Albert et Muller, Théo. Limite supérieure de la vie moyenne de l'oxygène 16 dans l'état excité de 6,13 MeV. 74.
- Gorter, C. J. Facts about superconductivity. 281.
- s. Beun, J. A. 2462.
- s. Gerritsen, H. J. 2108.
- s. Grivet, P. 1917.
- s. Marel, L. C. van der. 1019.
- s. Winkel, P. 1947, 1948.
- , E. W. Ionic distribution deduced from the g-factor of a ferrimagnetic spinel: Ti^{4+} in fourfold co-ordination. 276.
- Gosar, Peter. Transistoren. 1438.
- Goss, Clinton G. Nuclear reactors for industry and research. Reactor control. 560.
- Nuclear reactors for industry and research. Instruments for experiments. 755.
- Gossett, C. R. Phillips, G. C. and Eisinger, J. T. Absolute magnetic analysis of F^{19} (p, p') F^{19} reaction. 962.
- — Schiffer, J. P. and Windham, P. M. Magnetic analysis of the Be^9 (p, p') Be^9 and Be^9 (p, pn) Be^8 reactions. 1591.
- s. Phillips, G. C. 1789.
- s. Schiffer, J. P. 1789.
- Gosting, Louis J. s. Baldwin, Robert L. 1632.
- s. Dunlop, Peter J. 2429.
- Goswami, A. Disorientation of single crystal substrate due to epitaxial stress. 2420.
- Gotō, Ken-iti. Quantization of non-linear fields. 1715.
- So-called pseudo spinors. 2261.
- , Miyoji. Differential electrometer and its application to the simultaneous measurement of air-earth current and potential gradient. 2575.
- , Shigeo. Cut-off method in meson theory. 722.
- Gottfried, Hanna T. s. Murcott, Neville. 1457.
- Gottlieb, M. B. s. Ellis, J. A. 249.
- s. McDonald, F. B. 249.
- s. Meredith, L. H. 522.
- Gottstein, K. Paarerzeugung von Hyperonen und schweren Mesonen. 1131.
- s. Biswas, N. N. 2000.
- und Teucher, Martin. Mesonenerzeugung beim Zusammenstoß energiereicher Nukleonen. 395.
- Gouarné, René. Généralisation des polynomes d'Hermite en relation avec le dénombrement des permutations de n objets ne présentant pas de cycles d'ordre supérieur à un entier donné p. 2262.
- Goubau, Georg mit Honerjäger, Richard und Müller, Rolf. Elektromagnetische Wellenleiter und Hohlräume. 1706.
- Gould, C. L. s. Jacobus, D. D. 1752.
- , F. T. Taylor, T. I. and Havens, W. W. jr. Absorption cross section of gold for slow neutrons measured on a single crystal spectrometer. 1383.
- , R. N. s. Cunliffe, A. 1925.
- , S. E. s. Gombert, H. J. 875, 1278.
- Gove, H. E. Elastic scattering of protons, deuterons and alpha particles from heavy elements. 1584.
- and Paul, E. B. Angular distribution of gamma rays from proton capture in B^{11} . 73.
- Bartholomew, G. A. Paul, E. B. and Litherland, A. E. Reaction $\text{C}^{14}(\text{p}\gamma)\text{N}^{15}$ above the (pn) threshold. 65.
- Litherland, A. E. Paul, E. B. and Bartholomew, G. A. Gamma rays from the reaction $\text{Mg}^{45}(\text{p}, \text{p}\gamma)$. 1785.
- Paul, E. B. Litherland, A. E. and Bartholomew, G. A. Spin assignments and partial width measurements of resonances in S^{32} from the reaction $\text{P}^{31}(\text{p}\gamma)\text{S}^{32}$. 1784.
- s. Bartholomew, G. A. 964, 1548, 1784.
- s. Litherland, A. E. 572, 1370.
- s. Paul, E. B. 1371, 1559.
- , Norwood Smith, Fred A. and Becker, R. A. Radiations from Mo^{91} . 964.
- Govindjee, M. s. Allan, H. R. 2035.
- Gow, James D. s. Ruby, Laurence. 389.
- , K. V. s. Martius, Ursula M. 1421.
- Gowan, E. H. Ozone measurements over Edmonton (lat. N. $53^\circ 34'$, long. W. $113^\circ 31'$) 1951 to 1954. 1703.
- Goyan, Frank M. Bol, Cornelius Strait, Louis A. Harris, P. M. and Anderson, O. E. Gallium light source. 163.

- Goyan, Frank M. s. *Strait, Louis A.* 157.
- Gozzini, Adriano. Phénomènes magnéto-optiques liés à la résonance moléculaire des gaz dans le domaine des hyperfréquences. 2057.
- Grabe, Barbro s. *Fischer-Hjalmars, Inga.* 1185.
- Grabner, A. Objektiv, Okular und Auge — Eine Bilanz ihres Zusammenspiels beim Mikroskopieren. 1459.
- Grace, M. A. Influence du cortège électronique sur l'émission des rayonnements nucléaires. 1140.
- and Halban, H. Nuclear alignment in isotopes of cobalt. 2008.
- s. *Ambler, E.* 2008.
- s. *Bishop, G. R.* 237.
- s. *Cacho, C. F. M.* 1140.
- s. *Daniels, J. M.* 2358.
- s. *Lemmer, H. R.* 75.
- Gränicher, H. Struktur und Nullpunkts-entropie des Eises. 2417.
- Graetzer, H. G. and Pollard, E. C. Upper limit to the lifetime of a compound nucleus. 1142.
- Graf, H. 3. Europäische Werkzeugmaschinen-Ausstellung Brüssel 1953. 2257.
- , L. s. *Fucks, W.* 1866.
- Graffi, Dario. Oscillazioni forzate nei sistemi non lineari a due gradi di libertà. 1099.
- Graffunder, W. Relaciones entre la técnica de las altas frecuencias y la física atómica y nuclear. 2337.
- Graham, A. and Walles, K. F. A. Relationships between long- and short-time creep and tensile properties of a commercial alloy. 169.
- , C. H. Hsia, Y. and Berger, E. Luminescence functions for normal and dichromatic subjects including a case of unilateral color blindness. 700.
- , J. R. s. *Muir, D. R.* 2322.
- , J. W. Tracing the earth's magnetic field in geologic time. 2238.
- Rock magnetism and the earth's magnetic field during paleozoic time. 521.
- Evidence of polar shift since Triassic time. 2570.
- , L. s. *Lane, W.* 2559.
- s. *Stull, D. R.* 23.
- , Robert. Hard resin optics. 155.
- , R. L. Wolfson, J. L. and Clark, M. A. Disintegration of 27-hr Ho^{166} . 1154.
- Bell, R. E. Yaffe, L. and Geiger, J. S. Thermal neutron capture cross section of Au^{198} and the half-life of the 209-KeV state in Hg^{199} . 1548.
- Graham, A. s. *Bell, R. E.* 1351.
- , R. W. s. *Reese, Bruce A.* 1960.
- , W. J. s. *Fey, R. L.* 1231.
- Grahame, David C. Electrical double layer in methanol. 657.
- Elektrische Doppelschicht. 657.
- Grainger, C. T. s. *Somerville, J. M.* 2164.
- Grajewskaja, J. I. s. *Dobrotin, N. A.* 988.
- Grälén, Nils and Berg, Stig. Treatment of wood with ultrasonic waves. 1899.
- Grammaticakis, Panos. Etude de l'absorption dans l'ultraviolet moyen et le visible des dérivés de la pyridine. I. 627.
- Etude de l'absorption dans l'ultraviolet moyen et le visible des dérivés de la pyridine. II. Pyridinaldéhydes (α , β , γ) et leurs dérivés fonctionnels azotes. 2413.
- Grand, Y. le. Problèmes rétinien. 1274.
- Grandey, Ray A. s. *Mann, Leonard A.* 89.
- and Clark, Arnold F. Scattering of 151-Mev positive pions by protons. 982.
- Grange, Jean s. *Mallemann, René de.* 2415.
- Granier-Mayence, Mme Janine et Romand, Jacques. Spectre d'absorption de l'oxyde azotique solide entre 2400 et 1600 Å. 448.
- Grant, D. A. s. *Leibowitz, H. W.* 700.
- Granville, J. W. s. *Gibson, A. F.* 1437.
- Graß, Günther. Optisches Verhalten von Metallen bei hohen Temperaturen. 317.
- Graßmann, P. Vollautomatische Anlage zur Heliumverflüssigung. 194.
- Grassmann, Peter. Ausgleichsvorgänge. Theorie der irreversiblen Prozesse. 32.
- Gratridge, Walter. Properties of the iron oxide-alumina system. 650.
- Graul, Emil Heinz. Wellenförmiger Reaktionsablauf in der Haut nach Röntgenstrahleneinwirkung. 343.
- Graves, A. Radiation tolerance control. 2228.
- , E. R. s. *Battat, M. E.* 412.
- and Davis, Roland W. Cross sections for nonelastic interactions of 14-Mev neutrons with various elements. 421.
- , J. D. Webb, L. A. and Davis, R. H. Performance of lucite-bonded alpha-scintillation screens. 229.
- s. *Childers, H. M.* 1683.

- Graves, William E. and Mitchell, Allan C. G. Disintegration of As⁷¹. 73.
- — Disintegration of Te¹²⁹. 964.
- and Suri, S. K. Disintegration of Sc⁴⁷. 2378.
- Grawert, Gerald. Lorentz-invariante Zwei-Teilchengleichung und Darstellungen der Lorentz-Gruppe. 1927.
- Gray, Ernest P. Hart, Robert W. and Guier, William H. Statistical theory of atomic excitation by electron impact. II. Application to H and He. 1191.
- s. Hart, Robert W. 1191, 2051.
- , G. W. Heating instrument for the accurate determination of mesomorphic and polymorphic transition temperatures. 2423.
- , L. H. Problème des relations entre le rendement radiochimique et les aspects physiques de la qualité des radiations. 611.
- , T. J. s. Derry, R. 289.
- Grdenić, D. Crystal and molecular structure of mercury diethylene oxide. 795.
- Grebenkemper, C. J. High-frequency resistance of tin and indium in the normal and superconducting state. 127.
- Green, A. E. Hypo-elasticity and plasticity. 732.
- , A. E. S. and Lee, Kiuck. IPM mass surface. 1346.
- Coulomb radius constant from nuclear masses. 48.
- Particle binding energies in the diffuse boundary IPM. 567.
- Nomogram for estimating nuclear reaction energies. 1352.
- Particle binding energies and the diffuseness of the nuclear boundary. 1763.
- and Lee, Kiuck. Energy eigenvalues for a spherical well with an exponentially diffuse boundary. 1497.
- s. Lee, Kiuck. 567.
- s. Salacz-Dohnanyi, Julius. 567.
- s. Zankel, Kenneth L. 567.
- , B. C. and Spinks, J. W. T. Automatic plotting of the position of a moving radioactively tagged object. 1077.
- , David and Richardson, J. Reginald. Radiations from some odd-odd N-Z nuclei. 59.
- David and Richardson, J. Reginald. Radiations from P³⁰, Cl³⁴ and K³⁸. 2372.
- , D. E. s. Mahler, H. R. 872.
- , D. W. Harris, J. C. and Cooper, J. N. Half-lives of Al²⁵ and Al²⁶. 579.
- Cooper, John N. and Harris, James C. Stopping cross sections of metals for protons of energies from 400 to 1000 kev. 977.
- , G. K. Courant, E. D. Haworth, L. J. and Snyder, H. S. Electron analog. 1751.
- , G. W. Construction of a straight-through, metal, O-ring-sealed, vacuum stopcock. 1722.
- , H. S. Covariant treatment of the nucleon-nucleon interaction. 1374.
- Molecular theory of irreversible processes in fluids. 1969.
- , J. W. Expansion method for parabolic partial differential equations. 896.
- , Louis C. Mulder, Marjorie M. Milner, Paul C. Lewis, Margaret N. Woll, John W. jr., Kolchin, Eleanor K. and Mace, David. Analysis of the three parameter wave function of Hylleraas for the He I ground state in terms of central field wave functions. 619.
- s. Lewis, Margaret N. 96, 1886.
- , L. L. Singh, J. J. and Willmott, J. C. Low lying levels ²⁵Al. 241.
- — — Energy levels of ²⁶Al. 2025.
- s. Broude, C. 2377.
- s. Cartwright, D. K. 2382.
- , Milton. Versatile densitometer that records linearly transmittance, density or logarithmus of the intensity. 164.
- , Mino and Kafalas, J. A. Oxidation of clean surfaces of germanium below 25°C. 2128.
- , R. E. s. Stewart, A. T. 1130.
- , T. S. and Middleton, R. Investigation of deuteron induced reactions by magnetic analysis. I. Experimental technique. 951.
- — — II. Results for ⁹Be, ¹²C, ¹⁴N and ¹⁶O. 951.
- s. Burrows, H. B. 2036.
- Greenberg, D. H. s. Lichoud, R. van. 1148, 1566.
- , J. Mayo. Comparison of several approximations to scattering of high-energy electrons. 87.

- Greenberg, J.* Scattering approximations using plane-wave trial functions. 244.
- Variational principle for the total scattering amplitude. 1165.
- , *J. S.* and *Deutsch, M.* Internal pair creation in neutron decay. 1331.
- , *L. H. Taylor, J. G. V.* and *Haslam, R. N. H.* Yield of alpha particles from photonuclear reactions at 23-Mev bremsstrahlung. 1354.
- , *O. W.* and *Wightman, A. S.* Re-examination of the neutrino theory of light. 365.
- Greene, R. E. s.* *Lamphere, R. W.* 1777.
- , *R. F. s.* *Longini, R. L.* 2116.
- Greening, J. R.* Theory of ionization chamber measurements at low pressures. 342.
- , *W. D. B. s.* *Deutschmann, M.* 1335, 1999.
- Greenler, Robert G.* Interferometry in the infrared. 1883.
- Greenspan, Martin s.* *Tschiegg, Carroll.* 487.
- Greenwald, A. J. s.* *Bergdolt, V. E.* 20.
- Greenwood, J. A.* and *Tabor, D.* Deformation properties of friction junctions. 206.
- , *N. N.* Mercury cut-off for transferring gas at atmospheric pressure into a high vacuum. 2273.
- Gregg, E. C. s.* *Robson, J. W.* 607.
- *s.* *Stears, R. L.* 558.
- , *H. T. jr.* Sub-zero treatment of metals. 1268.
- Gregorich, Frederick s.* *Jasper, Joseph J.* 269.
- Gregory, B. s.* *Armenteros, R.* 939, 2352.
- , *J. W. G. s.* *Crewe, A. V.* 558.
- , *N. W. s.* *MacLaren, R. O.* 2319.
- Greiner, Christa.* Nachweis von Ummagnetisierungskeimen an Eisen-Nickel-Drähten unter Zug mit der Methode der Bitterschen Streifen. 1017.
- Grémillard, Jean.* Jours intermédiaires dans les épreuves de chronomètres. 1301.
- Grenmelmaier, R.* GaAs-Photoelement. 136.
- und *Welker, H.* Nachweis von Neutronen mit einem Indiumphosphid-p-n-Element. 1982.
- Grenon, Michel.* Etude du fonctionnement des compteurs à cathode externe. Influence du traitement thermique et rôle de l'eau liée au verre. 1974.
- Grenville-Wells, H. J.* and *Abrahams, S. C.* Upper level precession photography and the Lorentz-polarization correction. II. 104.
- Gresky, Gerhard. s.* *Gabler, Heinz.* 490.
- Greve, L. de s.* *Itterbeek, A. van.* 2114.
- Gridley, A.* and *Hall, J. A.* Brush for cleaning decade switch contacts. 483.
- Griem, H.* and *Singer, S. F.* Geomagnetic albedo at rocket altitudes at the equator. 247.
- Griese, H. J.* Qualitätsgrenzen des Differenzträger-tonempfangs. 1452.
- Griessbach, Dieter* und *Wolf, Hans Christoph.* Einfache Methodik zur Messung und Demonstration der Rotationsdispersion. 854.
- *s.* *Wolf, Hans Christoph.* 853.
- Grieverson, Brian M. s.* *Gordon, Manfred.* 2079.
- Griffel, Maurice.* *Jessup, Ralph S. Cogliano, Joseph A.* and *Park, Rita P.* Apparent specific volume of polystyrene in benzene, toluene, ethylbenzene and 2-butanone. 266.
- Griffin, James J.* Variational approach to collective nuclear behaviour. 366.
- , *P. M.* and *McNally, J. R. jr.* Zeeman effects in the spectrum of plutonium. 1399.
- *s.* *Sluis, K. L. Vander.* 2050.
- Griffing, D. F. s.* *Wheatley, J. C.* 1767.
- , *G. W. s.* *Dalgarno, A.* 603.
- , *George W. s.* *Faire, A. C.* 788.
- , *V.* and *Maček, Andrej.* Effect of ultrasonics on the explosive sensitivity of ammonium permanganate. 217.
- *s.* *Maček, Andrej.* 217.
- Ultrasonic chemical effects. 1957.
- *Cargyle, Martha Ann Corvase, Louis* and *Eby, Denise.* Temperature coefficients of viscosity of some halogen substituted organic compounds. 1102.
- Griffith, G. L.* Gamma radiation from neutron inelastic scattering. 969.
- , *J. S.* Magnetic properties of some haemoglobin complexes. 2110.
- Free-electron theory of conjugated molecules. I. Polycyclic hydrocarbons. 2055.
- , *Wayland* and *Bleakney, Walker.* Diffusion analogy for shocks interacting with thermal boundary layers. 915.
- Griffiths, D. H.* Remanent magnetism of varved clays from Sweden. 2240.
- *s.* *Ising, Gustav.* 2241.

- Griffiths, G. M. Pulse height distribution from a sodium iodide single crystal scintillation counter and the measurement of gamma ray fluxes. 1748.
- and Warren, J. B. Gamma radiation from the reaction $D(p, \gamma)^3\text{He}$. 243.
- , H. V. Focusing of waves in radio reception. 1245.
- , L. H. Non-metallic materials of construction for handling radioactive wastes. 234.
- , L. J. Davies, R. M. and Richards, D. A. Sensitive continuously-evacuated cathode-ray oscillograph and its use in stresswave measurements. 1638.
- Grigorow, N. L. s. Dobrotin, N. A. 988.
- Grilli, M. s. Baldo, M. 563.
- s. Ceccarelli, M. 763.
- s. Davies, J. H. 763.
- Grilly, E. R. Simple thermal conductivity analyzer for ortho-para hydrogen. 11.
- Grimeland, B. Average cross-sections for the reactions $^{32}\text{S}(n, p)^{32}\text{P}$ and $^{31}\text{P}(n, p)^{31}\text{Si}$ with fission neutrons. 766.
- Activation cross-sections of sodium and phosphorus. 1352.
- Grimes, D. M. and Kuiper, J. W. Effect of V_2O_5 on spinel formation. 2421.
- , F. A. Two-way tap for continuous operation. 725.
- Grimley, T. B. Mean dimensions of rubber-like molecules. 1201.
- and Trapnell, B. M. W. Gas oxide interface and the oxidation of metals. 1272.
- Grimm, Ernst und Oster, Helmut. Magnetische Sauerstoffmessung für kleine Meßbereichumfänge. 1098.
- , G. Rainwater, L. J. and Havens, jr. W. W. Slow neutron velocity spectrometer using the Nevis synchrocyclotron. 1326.
- , Walter s. Möller, Hermann. 1472.
- Grimod, Yves. Machine à mesurer différentielle. 728.
- Grimsal, E. G. Hall coefficient in anisotropic media. 129.
- Grisaru, M. s. Arnold, W. H. 1755.
- Grisdale, R. O. Formation of black carbon. 114.
- Grisebach, Hans. s. Weygand, Friedrich. 2344.
- Grisoli, J. J. s. Jacobus, D. D. 1752.
- Grivet, P. Synchrotrons géants ou cosmotrons. 1987.
- Grivet, P. mit: Gabillard, R. Agant, Y. Soutif, M. Extermann, J. C. Buyle-Bodin, M. Bene, G. J. Denis, P. M. Vorwort von Gorter, C. J. Resonance paramagnétique nucléaire, moments dipolaires et quadripolaires. 1917.
- s. Hubert, P. 2206.
- Grjotheim, Kai und Krogh-Moe, Jan. Farbzentrenbildung. 1824.
- Grobber, N. s. Nussbaum, R. H. 1573.
- s. Nijgh, G. J. 242.
- Grodzins, L. Multiple scattering of 2.5 Mev positrons by 0.1 mil gold foil. 608.
- s. Castillo, Del. 1390.
- and Motz, Henry. Decay of 72 second and 49 day In^{114} . 964.
- Grodzinski, P. Härteprüfer für Kunststoffe. 636.
- Elastische und plastische Härte. 731.
- Mikro-Härte von Tafelglas und vorgespanntem Glas. 2547.
- Gröbner, W. s. Cap, F. 8.
- Groendijk, H. s. Becking, A. G. Th. 488.
- Groenou, A. Broese van s. Winkel, P. 1948.
- Groetzinger, G. s. Wiener, B. 510.
- and Aron, Jack. Longitudinal photo-magnetolectric effect in germanium. 1861.
- Kahn, David and Schwed, Philip. Criterion for superconductivity in metals. 125.
- s. Aron, Jack. 1863.
- Grogan, E. C. s. Ehret, R. J. 544.
- Groll, H. und Pusch, G. Resonanzfrequenzmesser mit hoher Genauigkeit für Dezimeterwellen. 2451.
- Gronberg, H. C. s. Reddeck, J. G. 2515.
- Grondin, N. A. s. Rozsa, J. T. 1254.
- Gronner, Alfred D. ac stabilizing networks. 305.
- Groot, S. R. de. Theories of angular distribution and correlation of beta and gamma radiation. 2030.
- and Tolhoek, H. A. Electric and chemical potentials; different methods of treatment and their relation. 829.
- Mazur, P. and Overbeek, J. Th. G. Nonequilibrium thermodynamics of the sedimentation potential and electrophoresis. 2099.
- s. Fieschi, R. 271. 272.
- s. Kluitenberg, G. A. 550, 1968.
- s. Mazur, P. 190.
- s. Tolhoek, H. A. 1140.
- , T. s. Addink, N. W. H. 496.

- Grootenhuis, P.* Correlation of the resistance to air flow of wire gauzes. 547.
- Grosch, H. R. J.* High speed arithmetic: digital computer as a research tool. 359.
- Groschwitz, E.* Stoßionisation in Silicium und Germanium. 1027.
- und *Siebertz, K.* Plasmaschwingungen und -Wellen in Halbleitern. I. 2115.
- s. *Wiesner, R.* 130.
- Physikalische Ursachen des Rauschens in Halbleitern. 285.
- Grosjean, C. C.* Theory of circularly symmetric standing TM waves in terminated irisloaded guides. 679.
- Properties of two functions appearing in the theory of TM wave propagation through periodically irisoaded guides. 848.
- High accuracy approximation for solving multiple scattering problems in infinite homogeneous media. 2033.
- Gross, B.* Lineare Systeme. 2272.
- , *E. P.* Theory of magnetic resonance saturation. 278.
- s. *Lebowitz, Joel L.* 673.
- , *G. Stranski, I. N.* und *Wolff, G.* Tribolumineszenz. II. 501.
- , *P. Hayman, C.* und *Levi, D. L.* Heats of formation of metal halides. Aluminium fluoride. 2310.
- , *Robert A.* Boundary layer flame stabilization. 1952.
- Grossetti, E.* s. *Carrelli, A.* 2311.
- Grosskopf, Herbert.* Methoden zur Erzielung eines gerichteten Schallempfanges. 378.
- , *J.* Feldstärkemessungen im Kurzwellenbereich. I. II. 813.
- Grosskreutz, J. C.* s. *Weller, C. E.* 1789.
- Grossmann-Doerth, U.* Dichte von schwerem Wasser zwischen 95°C und 160°C. 909.
- Grossweiner, Leonard I.* and *Gordon, Sheffield.* Oxidation and reduction of aqueous ferrousferrie sulfate induced by visible light absorption of mercuric sulfide. 2202.
- Grosvalet, J.* Méthode de mesure des vitesses de recombinaisons superficielles dans les semi-conducteurs par effet photomagnétoélectrique en régime sinusoidal. 2469.
- Grottdal, T.* s. *Gibson, W. M.* 2017.
- Groth, Klaus.* Schwingungen in der Druckleitung von Kolbenverdichtern. 2298.
- , *W. Georg von Hevesy* zum 70. Geburtstag. 357.
- Grothendieck, Alexandre.* Théorie des opérations linéaires. 2260.
- Grotjahn, H.* s. *Hess, K.* 802.
- Grottrian, Walter.* 30 Jahre Forschungsarbeit im Einsteinurm in Potsdam. 1917.
- Grove, E. L.* s. *Hamme, H. W.* 1230.
- , *G. R. s. Daggett, E. H.* 1579.
- s. *Hagee, G. R.* 570.
- Groves, G. V.* Geometrical theory of sound propagation in the atmosphere. 1736.
- Grube, G.* Wolfgang Seith †. 1489.
- , *W. L.* and *Rouze, S. R.* Application of the two-beam interference microscope to the study of surfaces. 684.
- Application of the two-beam interference microscope to the study of surfaces. 806.
- Grümm, H.* Elektronen- und Ionenbündel mit krummer Achse — wellenmechanisch betrachtet. 324.
- Schneidmethode zur Bestimmung der Aberrationen von abgelenkten Elektronenbündeln. 2535.
- Eigenladungs-Verbreiterung eines fokussierten Elektronenbündels. 2205.
- Grün, F.* s. *Moppert, K.-F.* 1513.
- Grünwald, E.* Induktivitätsberechnung besonderer Schienenanordnungen. 1873.
- Regler und Rückführungen. I. u. II. 1936.
- Grütter, F.* Vakuumtechnische Untersuchungen an Mutatoren. 1721.
- Grunberg, L.* Viscosity of regular solutions. Systems involving carbon tetrachloride, benzene and cyclohexane. 203.
- and *Wright, K. H. R.* Structure of abraded metal surfaces. 2088.
- Grund, A.* et *Pizy, Melle M.* Structure cristalline du metasilicate de sodium anhydre, Na_2SiO_3 . 2067.
- s. *Brenet, Jean.* 2486.
- , *Harald* s. *Krauss, Walther.* 1190.
- Grunewald, Horst.* Abhängigkeit der elektrischen Leitfähigkeit von Titan-dioxyd vom Gehalt an anderswertigen Fremdionen. 288.
- Elektrische Leitfähigkeit von Fe_2O_3 mit Zusätzen von TiO_2 . 288.
- s. *Haujfe, Karl.* 1033.

- Grunow, Johannes.* Repräsentative Zeitabschnitte zur Erfassung der mittleren Windgeschwindigkeit. 2580.
- Grunwald, Ernest s. Marshall, Henry P.* 2153.
- Gubanow, A. I.* Bändertheorie eines dreidimensionalen Flüssigkeitsmodells. 1009.
- Gubbins, T. F. s. Lawson, J. D.* 1250.
- Guck, Rudolf W.* Negative Koronaentladung in der Spitze-Platte-Funkensstrecke. 1045.
- Gucker, F. T. and Rose, D. G.* Photo-electronic instrument for counting and sizing aerosol particles. 2095.
- , *Frank T. jr. and Peterson, Axel H.* Comparison photometer to measure light scattering of aerosols and gases, using the latter as light-scattering standards. 316.
- Guderjahn, Charles A. s. Berge, Ralph I.* 1209.
- Gudmundsen, Richard A. s. Forrester, A. Theodore.* 1052.
- Guebely, M. A. El et Haissinsky, M.* Recherches électrochimiques sur le ruthénium par la méthode des indicateurs radioactifs. 834.
- , *M. El. s. Coche, A.* 2162.
- Günther, F. und Erdmann-Jesnitzner, F.* Zur Plastizität benetzter Sylvit- und Steinsalzkristalle. 1306.
- , *Gabriele und Staudé, Herbert.* Untersuchung über ein Redoxsystem mit einem trimeren Chinon. 2143.
- , *Joh.* Synchronisier- und Impulstechnik im Fernsehen. 1453.
- , *N. 55.* Tagung der Deutschen Gesellschaft für angewandte Optik in Göttingen am 10. und 11. Juni 1954. 1090.
- , *R. s. Steubing, W.* 1184.
- Günzler, H.* Messung kleinster Durchlässigkeiten von Farbglässern und Metallinterferenzfiltern im sichtbaren Spektralgebiet. 2524.
- *s. Luther, Horst.* 1189.
- Guernsey, Janet B.* Neutron cross sections for zirconium. 1363.
- and *Goodman, Clark.* Neutron cross sections for zirconium. 2375.
- and *Wattenberg, A.* Neutron inelastic scattering. 1379.
- Guéron, J.* Exemples d'applications industrielles de la radioactivité. 932.
- *s. Coriou, H.* 2486.
- Guéron, Jules.* Industrial applications of radioelements made at the Commissariat à L'Energie Atomique. 1894.
- Guerriero, L. s. Deutschmann, M.* 1335, 1999.
- Gürtler, Gustav.* Kristallisation der Aluminium-Silizium-Legierungen. 2545.
- Guest, P. G.* Differential refractometer of high sensitivity. 1881.
- Güth, W.* Kinematographische Aufnahmen von Wasserdampfblasen. 2295.
- *Leitung von Schallimpulsen in Metallstäben.* 2301.
- *s. Exner, M.-L.* 1734.
- Gütter, E.* Auswertung und Korrekturmöglichkeit von Beugungsbildern im Boersch'schen Strahlengang. 2535.
- Guevel, Pierre.* Etude du coefficient de perméabilité d'un milieu poreux. 2289.
- Gugan, D.* High-pressure closures and electrodes. 1722.
- Gugelberg, v. H.* Dekadische Zählröhre mit kalten Kathoden. 490.
- Gugelot, P. C. s. Schrank, G.* 416.
- Guggenbühl, Walter und Strutt, M. J. O.* Messungen der spontanen Schwankungen bei Strömen mit verschiedenen Trägern in Halbleitersperrschichten. 1040.
- Guggenheim, E. A.* Brönsted's principle of specific interaction. 1113.
- Guier, William H. s. Gray, Ernest P.* 1191.
- *s. Hart, Robert W.* 1191, 1280, 2051.
- Guile, A. E. and Carne, E. B.* Analogue solution of heat conduction problems. 380.
- Guillemín, C.* Minéralogie des arsénates, phosphates et vanadates de cuivre. I. Arsénates de cuivre. 1405.
- *Minéralogie des arsénates, phosphates et vanadates de cuivre. II. Phosphates et vanadates de cuivre.* 2547.
- *et Permingeat, F.* Espèces minérales nouvelles. 2547.
- Guillet, J. E. and Norrish, R. G. W.* Photolysis of polymethylvinylketone. I. Reactions and kinetics. 803.
- *II. Preparation of graft polymers.* 803.
- Guinier, André s. Blin, Jean.* 2542.
- Guinot, Bernard s. Danjon, André.* 2230.
- Guizonnier, R.* Homocharges dans les huiles isolantes sous l'influence d'une différence de potential continue. 299.

- Guizonnier, R.* Répartition des potentiels dans le tétrachlorure de carbone soumis à une différence de potentiel constante (champs inférieurs à 1500 V/cm). 2154.
- et *Mourcin, P.* Conductibilité du tétrachlorure de carbone (champs inférieurs à 1500 V/cm). 2154.
- Gulbis, F.* s. *Kéech, G. L.* 1801.
- Gulbransen, Earl A. Mac Millan, William R. et Andrew, Kenneth F.* Réaction du fer avec l'oxygène aux basses pressions et à des températures comprises entre 650° et 850° C. 2214.
- Gulmanelli, P.* s. *Duimio, F.* 720.
- Gumbel, E. J.* Calculated risk in flood control. 1311.
- Débits minima interprétés comme valeurs extrêmes. 2262.
- Gummel, Hermann and Lax, Melvin.* Thermal ionization and capture of electrons trapped in semiconductors. 500.
- Gund, K. and Paul, W.* Experiments with a 6-Mev betatron. 1985.
- Gundlach, F. W.* Hans Busch. 2254.
- Gunn, J. B.* s. *Avery, D. G.* 649.
- , *Ross.* Measurements of the electricity carried by precipitation particles. 528.
- Electric field meters. 1701.
- Gunning, H. E.* s. *McDonald, C. C.* 1685.
- Gunter, Roy C. jr.* Electronic method for automatic focusing. 2196.
- Gunther-Mohr, G. R. s. Koenig, S. H.* 1220.
- Gupta, A. K. Das and Dhaer, S. K.* Spectrophotometric determination of niobium. 2542.
- , *D. P.* s. *Rao, B. R.* 536.
- , *I. C. Chang, W. Y. and Snyder, A.* Doubleplate cloud-chamber study of V⁰-particles. I. Classification. 1995.
- s. *Snyder, A.* 1995.
- , *M. R.* s. *Chakrabarty, S. K.* 2399.
- , *R. K. and Jha, S.* High energy gamma ray in the decay of barium 131. 772.
- Scintillation spectrometer. 2379.
- , *S. s. Majumdar, R. C.* 900.
- , *Suraj N.* Gravitation and electromagnetism. 1712.
- , *U. C.* s. *Miller, D. W.* 1366. 2375.
- , *s. Rasmussen, V. K.* 1783.
- Gurwitsch, A. M. and Westendorf, W. F.* Ionic pump. 906.
- Gurnee, E. F. Patterson, L. T. and Andrews, R. D.* Apparatus for making simultaneous stress and birefringence measurements on polymers. 1412.
- Gurnde, E. F.* Theory of orientation and double refraction in polymers. 2441.
- Gurney, J. F.* s. *Burgener, J. E.* 505.
- s. *Jarrell, R. E.* 492.
- , *Ronald W.* s. *Nisonoff, Alfred.* 1964.
- Gursky, H.* s. *Arnold, W. H.* 403.
- , *Martin L.* Particle motion in an anisotropic harmonic oscillator well. 1138.
- Gush, H. P. and Jones, A. Vallance.* Infrared spectrum of the night sky from 1.0 μ to 2.0 μ . 2243.
- Gustafson, Torsten.* Potential collective flow of a rotating nucleus with non-ellipsoidal boundary. 2004.
- Gutbier, H.* s. *Neuert, H.* 1975.
- Gutenberg, B. and Richter, C. F.* Magnitude and energy of earthquakes. 1699.
- Guterman, S. Kodis, Robert D. and Ruhman, S.* Logical and control functions performed with magnetic cores. 1709.
- Gutfreund, H.* Osmotic pressure of solutions of trypsin and trypsin compounds. 252.
- Analysis of osmotic pressure measurements of solutions of bovine serum proteins. 339.
- Guth, E. s. Mullin, C. J.* 592.
- Guthe, D. B.* s. *Bockelman, C. K.* 1785.
- Guthmann, Kurt.* Stand der Tauch-Temperaturmessung in Schmelzbetrieben. 1958.
- Guthrie, G. Friedberg, S. A. and Goldman, J. E.* Electronic specific heat of α -Mn. 1315.
- Gutowsky, H. S. and Meyer, L. H.* Proton magnetic resonance in natural rubber. 277.
- s. *McGarvey, B. R.* 277.
- Gutzwiller, Martin.* Quantum electrodynamics in a space of constant curvature. 363.
- Guy, Jean et Chaigneau, Marcel.* Spectre d'absorption infrarouge du cyanure de bore. 2058.
- Guyard, Mme M.* s. *Tirouflet, J.* 1440.
- Gwinn, William D.* s. *Johnson, Russell D.* 787.
- Györgyi, G.* Theorie der Schwingungen der auf einen Torsionsdraht aufgehängten Waage nach Eötvös-Selényi. 2280.
- Bewegung des Energiemittelpunktes und der Energie-Impuls-Tensor des

elektromagnetischen Feldes in Dielektrika. 2463.

Györgyi, G. s. Marx, G. 2464.

Gyulai, Z. P. Selényi †. 1489.

— Durch Kristalle verursachte Zerstörungswirkungen in porösen Materialien. 1690.

H

Haack, P. J. van der., Vries, A. E. de and Aten jr., A. H. W. Arsenic 79. 2024.

Haaf, F. E. L. ten s. Nussbaum, R. H. 1782.

Haag, Rudolf. Selbstwechselwirkung des Elektrons. 721.

Haagensen, Cushman, D. s. Dmochowski, Leon. 2223.

Haake, C. H. Frequency dependence of electroluminescent brightness. 2538.

— Temperature dependence of electroluminescence. 1264.

Haan, E. F. de and Sizoo, G. J. Semi-circular beta-ray spectrometer for beta-gamma coincidence measurements. 1516.

— and Kramer, P. Beta-gamma coincidence spectrum of the UX-complex. 1575.

— s. Stoker, P. H. 556.

— s. Wijngaarden, J. G. van. 2180.

Haar, D. ter. Law of corresponding states. 219.

— Cosmic cloud hypothesis of the origin of the solar system. 516.

— Foundations of statistical mechanics. 754.

— Size of interstellar clouds. 1699.

— and Nicol, W. M. Heisenberg relations. 1925.

— s. Coldwell-Horsfall, Rosemary A. 281.

— s. Dempsey, E. 1017.

—, Lester, Bradley, Joe C. and Friedman, Abraham S. Ideal gas thermodynamic functions of the isotopic hydrogen sulfides. 380.

— s. Friedman, Abraham S. 23.

—, P. von der s. O'Connor, R. T. 2410.

Haarlaender, Hans. Stromfelddivergenz und Bodendruckänderung. 2582.

Haas, C. s. Ketelaar, J. A. A. 2329.

—, L. L. s. Beattie, J. W. 1079.

—, M. M. C. et Mathieu, J. P. Spectre infrarouge et ondes longitudinales et transversales dans les cristaux cubiques. 801.

Haas jr., V. B. Coulomb friction in feedback control systems. 908.

Haase, G. und Schneider, G. Thermo-elemente aus dem System Iridium-Rhenium. 1108.

—, Heinz. Statische Elektrizität und ihre Auswirkungen. 2499.

—, Ludwig Werner. Deckschichten- und Schutzschichtenbildung. 871.

—, O. Anwendung der Kathodenzerstäubung bei Elektronenbeugungsuntersuchungen. 793.

—, R. und Rehage, G. Vorzeichen der Mischungsentropie. 921.

— Thermodynamik der irreversiblen Prozesse. III. 384.

Haasen, P. und Leibfried, G. Plastische Verformung von Metalkristallen und ihre physikalischen Grundlagen. 1940.

Habel, Adelaide s. Sloan, Loise, L. 1477.

Haber-Schaim, U. Proton nucleus collisions at 6 Bev. 1994.

Haberstroh, G. Untersuchung der charakteristischen Energieverluste mit Hilfe der Gegenfeldmethode. 1392.

— und Raether, H. Untersuchung der charakteristischen Energieverluste mit Hilfe der Gegenfeldmethode. 1803.

Hachenberg, O., Fürstenberg, F. und Prinzler, H. Messungen der Sonnenstrahlung bei 20 cm und 3 cm Wellenlänge anlässlich der Sonnenfinsternis 1954 Juni 30. 2231.

Hack, M. N. Bound states and the formal theory of scattering. 4.

— Theory of multiple quantum transitions. 1926.

Hackerman, Norman and Emerson, H. Lee. Effect of gases on the contact potentials of evaporated metal films. 2499.

— and Stephens, Sarah Jane. Adsorption of sulfate ions from aqueous solutions by iron surfaces. 2446.

— s. Hannah, K. W. 29.

Hacking, C. A. Observations of the negatively-charged column in thunderclouds. 890.

Haddenhorst, Hans-Günter. Durchgang von elektromagnetischen Wellen durch inhomogene Schichten. II. Absorption von elektromagnetischen Wellen. 1868.

Haddock, F. T. Eclipse measurements at centimeter wavelength and their interpretation. 516.

- Haddock, F. T. Mayer, C. H. and Sloanaker, M. R. Radiation at 10 cm from discrete sources and the Orion Nebula. 516.
- , Roy. One hundred bevatron $\tau^+\tau^-$ s. 1758.
- , Roy P. s. Birge, Robert W. 1755.
- s. Kerth, L. T. 1336.
- Hadley, D. W. s. Walker, J. 1323.
- Hadni, Armand. Structure fine des raies de rotation de l'ammoniac de $J'' = 14$ à $J'' = 18$. 1618.
- Hadorn, E. s. Viscontini, M. 876.
- Haeblerli, W. s. Benenson, R. E. 38.
- s. Darden, S. E. 86.
- s. Galonsky, A. 959.
- Häfele, Wolf. Analytische Behandlung ebener, starker, instationärer Stoßwellen. 738.
- Stabilität des Stoßwellentypus aus der Klasse der Homologie-Lösungen. 738.
- Haefler, R. s. Birkenschenkel, H. 484.
- Haeflner, E., Sjöborg, Th. and Lindhe, S. Isotope effect of a direct electric current through liquid and solid metals. 1140.
- Hägg, G. and Karlsson, N. Aluminium monochromator with double curvature for high-intensity X-ray powder photographs. 2065.
- Hälg, W. s. Eriksen, V. O. 1317.
- Hämmerlin, G. Dreidimensionale Instabilität laminarer Grenzschichten. 2293.
- Haendler, H. M., Wheeler jr., C. M. and Bernard, W. J. Transmittance of crystalline cadmium fluoride. 800.
- Hänni, F. Aufspaltung schwerer Kerne der Primärkomponente der kosmischen Strahlung und Wechselwirkung der dabei entstehenden α -Teilchen. 2398.
- Lang, Ch., Teucher, M., Winzeler, H. and Lohrmann, E. Mass of the K-meson. 1757.
- Aufspaltung schwerer Primärkerne der kosmischen Strahlung in α -Teilchen. 769.
- Haenny, Ch. s. Favre, R. 1746.
- Hänsel, Horst. Prisma, mit dem sich Ablenkungen von linear homogen polarisierten wenig geöffneten Lichtbündeln ohne wesentliche Änderung des Polarisationszustandes erzielen lassen. 1884.
- , Kurt. Zeitgemäße Ermittlung von Gangfehlern der Uhr. 903.
- Härthl, E. s. Hüttig, G. F. 32.
- , Hans und Rumpel, Fritz. Elektrische Laufzeitketten zur Zeitselektion in Vielkanalsystemen. 2513.
- Hafemeister, Robert N. Ultrasonic testing of forging ingots. 332.
- Haffner, James W. Limitations of the stripping theory in inelastic deuteron scattering. 84.
- Hafner, E. M. and Chesnut, W. Phase-shift analysis of 210-Mev proton polarization. 419.
- s. Chesnut, W. G. 418.
- Haftka, F. J. Bestimmung der Transformationszahl x . 1681.
- Haga, Eijiro. Mayer's theory of dilute ionic solutions. 2322.
- Hagedorn, F. B. Preparation of thin N^{14} targets. 1518.
- s. Webb, T. S. 601, 1588.
- , Heinz s. Piper, Erich. 218.
- , Hermann. Hydraulisches Beschallungsgerät für Schall- und Ultraschall-schwingungen. 2306.
- Hagee, G. R., Curtis, M. L. and Grove, G. R. Half-life determinations of radium-223 and thorium-227. 570.
- Hagen, J. Solar research with radio astronomy techniques. 515.
- Hagenow, Karl Ulrich v. Rotierende kosmische Gasmassen. 1484.
- Hagerman, D. C. s. Crowe, K. M. 1757.
- and Crowe, K. M. Measurement of the high-energy end of the bremsstrahlung spectrum. 1599.
- Haggis, G. H. s. Buchanan, T. J. 1902.
- Hagihara, Hitosi. Surface roughening and oxidation of galena cleavage face in a vacuum furnace under limited air supply. 2442.
- Hagstrum, Homer D. Formation of metastable Ar^+ , Kr^+ , and Xe^+ by electron impact. 781.
- Ejection of electrons from contaminated metals by positive ions. 844.
- Hahlbohm, Hans-Dieter s. Yamada, Osamu. 1844.
- Hahn, Beat and Hofstadter, Robert. High-energy electron scattering in Rh, Ta, W and U. 607.
- , Ravenhall, D. G. and Hofstadter, Robert. High-energy electron scattering and the charge distributions of selected nuclei. 2394.

- Hahn, Dietrich und Seemann, F. W.* Temperaturabhängigkeit der Leuchtwellen der Elektrolumineszenz. 167.
- , *E.* Elektrostatischer Strahlkondensor und ein neues fünfstufiges Linsensystem. 1068.
- Korrektur des axialen Astigmatismus elektrostatischer Objektive. 324.
- , *E. L. s. Bloom, M.* 2457.
- , *Georg.* Kontinuierliche Messung und Registrierung der Viskosität von fließfähigen Materialien in geschlossenen Systemen. 201.
- , *Max, s. Lenz, Friedrich.* 1259.
- , *Otto.* Glückwunsch zum Nobelpreis an Professor Bothe. 1090.
- , *T. M. s. Farney, G. K.* 410.
- *s. Givin, H. H.* 413.
- *s. Rayburn, L. A.* 970.
- Hahnemann, H. W.* Thermische Phänomene und Schleppwirkungen in Grenzschichten. 2293.
- Haid, A.* Fernwirkung von Detonationen. 1953.
- Haiman, O. s. Fenyves, E.* 991, 2044.
- Haine, M. E. and Mulvey, T.* Practical attainment of high resolving power. 1677.
- Haines, H. R. s. Woodrow, J.* 2525.
- Haissinsky, M.* Evolution récente de la chimie des radiations des solutions aqueuses. 611.
- Heterogenität von Elektrodenoberflächen mit radioaktiven Indikatoren. 665.
- Structure de surface d'électrodes et électrochimie à l'échelle des indicateurs radioactifs. 833.
- et *Coche, A.* Réductions anodiques par électrolyse par étincelle. 2145.
- et *Quesney, M.* Préparation anodique et potentiel électrochimique du peroxyde de nickel. 2160.
- *s. Ghosh-Mazumdar, A. S.* 834.
- *s. El Guebely, M. A.* 834.
- *s. Ivanoff, Nina.* 1780.
- Hajduković, S.* Etude histochimique de l'action des rayons X sur les cholinestérases. 873.
- Hájek, Jaroslav.* Theorie der Temperaturabhängigkeit von Gleichrichtermeßgeräten. 1641.
- Hakeem, M. A. s. Rojo, Onofre.* 1580.
- Halatnikov, L. s. Landau, L. D.* 1927.
- Halban, H.* Orientation nucléaire à basse température et ses applications. 1767.
- Halban, H. s. Ambler, E.* 2008.
- *s. Daniels, J. M.* 2358.
- *s. Grace, M. A.* 2008.
- *s. Kurti, N.* 236.
- *s. Mims, W.* 1990.
- Halbert, E. C. s. French, J. B.* 1763.
- , *M. L. s. Camac, M.* 1345.
- Haldeman, R. G. and Emmett, P. H.* Specific adsorption of alkyl orange dyes on silica gel. 2446.
- Halden, F. A. and Kingery, W. D.* Surface tension at elevated temperatures. II. Effect of C, N, O and S on liquid iron surface tension and interfacial energy with Al_2O_3 . 1839.
- Hale, D. K. and Reichenberg, D.* Equilibrium and rate studies of cation-exchange with monofunctional resins. 381.
- , *D. P. and Present, R. D.* Mirror reactions H^3 (d, n) He^4 and He^3 (d, p) He^4 . 1772.
- , *John s. Truddenham, William J.* 2558.
- Halford, Ralph S. s. Zverdling, Solomon.* 445.
- Hall, A. R. s. Murray, R. C.* 753.
- , *B. I. H. and Huxley, L. G. H.* Experimental investigation of the motions of electrons in a gas in the presence of a magnetic field. 667.
- , *D. s. Wightman, A. S.* 363.
- , *E. O. s. Street, R.* 1075.
- , *E. W. s. Eveson, G. F.* 2288.
- , *J. M.* Experiments on supersonic flow over flat-nosed circular cylinders at yaw. II. Pressure measurements on a cylinder at 10° yaw. 1309.
- , *J. A. s. Gridley, A.* 483.
- , *jr., Joseph F. and Ferguson, W. F. C.* Dispersion of zinc sulfide and magnesium fluoride films in the visible spectrum. 2091.
- Optical properties of cadmium sulfide and zinc sulfide from 0.6 micron to 14 microns. 2208.
- , *Lewis D.* Analytical method of calculating variable diffusion coefficients. 110.
- , *L. H.* Photodiffusion current Hall effect: transient behavior. 470.
- , *R. A. s. Gooderham, W. J.* 16.
- , *Sheila M.* Instrumental and technical notes. Differential loading for linear gamma-ray sources — London Hospital. 346.

- Halla, Franz und Ruston, Walter R. Leitfähigkeitsanomalien bei Huminsäure-Solen. 296.
- Hallden, Naomi A. Beta emitters by energy and half-life. 2372.
- Hallén, O. s. Ekholm, R. 873.
- Haller, Kurt and Friedman, Marvin H. Anomalous magnetic moment of the nucleon. 2355.
- , W. and Calcamuggio, G. L. High precision studies of rate processes. 1304.
- , Wolfgang, Jura, George and Pimentel, George C. Infrared studies of solutions involving aromatics and halogens. 997.
- Hallett, A. C. H. s. Benson, C. B. 1009.
- s. Heikkilä, W. J. 1829.
- Halma, H. Film camera for the RCA type EMU electron microscope. 1069.
- and Chapman, G. B. Simple ultramicrotome. 1687.
- Halperin, A. and Garlick, G. F. J. Absorption spectrum of excited crystals of cadmium sulphide. 476.
- Halpern, I., Debs, R. J., Eisinger, J. T., Fairhall, A. W. and Richter, H. G. Yields of photonuclear reactions with 320-Mev X-rays. II. Interpretation of results. 55.
- s. Debs, R. J. 55.
- , J. and Dakers, R. G. Homogeneous activation of molecular hydrogen by cupric acetate. 1114.
- Nathans, R. and Yergin, P. F. (γ , n) threshold and the mass of A^{39} , A^{40} 405.
- s. Fabricand, B. P. 1354.
- s. Geller, K. 1774.
- s. Triebwasser, S. 1239.
- s. Weinstock, E. V. 2038.
- , O. and Appleton, G. L. Scattering of slow neutrons by O_2 molecules. 85.
- and Buckingham, R. A. Symmetry effects in gas kinetics. I. Helium isotopes. 1009.
- Halpin, A. H. s. Siegel, K. M. 375.
- , A. T. s. Watson, W. R. 1071.
- Halsey, G. D. jr. s. Steele, W. A. 2445.
- Rita M. and Chapanis, A. Chromaticity-confusion contours in a complex viewing situation. 700.
- Iso-chromaticity lines in color-deficient vision. 513.
- s. Chapanis, Alphonse. 702.
- Halverson, F. s. Hirt, R. C. 2062.
- Halwer, M., Nurting, G. C. and Brice, B. A. Rayleigh's ratio for benzene and the problem of absolute light scattering determinations. 159.
- Ham, F. S. and Mattis, D. Electrical properties of thin film semiconductors. 649.
- , S. Ionized impurity scattering in semiconductors. 1430.
- , Joe. Spectra of iodine solutions. I. Effects of low temperatures upon iodine complexes. II. Effects of high pressures upon iodine complexes. III. $^3\Pi_1^{-1}\Sigma^+$ transition of the iodine molecule in solution. 1617.
- Hama, Francis R. Relations between one- and three-dimensional functions in isotropic turbulence and the direct measurement of energy transfer function. 915.
- Hamada, Tetuo. Effect of nucleon excited state on magnetic moment anomaly. 2348.
- s. Matsumoto, Tokuji. 2271.
- Hamann, C. E. Germanium-new frontier for high power rectification. 1229.
- , K. Ionenkettenpolymerisationen. 1835.
- , S. D. s. David, H. G. 2325.
- , Mlle Yolande s. Joulé, Ludovic. 1403.
- Hamard, Pierre et Jacqué, Léon. Azote dans les résines de polycondensation phénol-formol-hexaméthylènetétramine. 2441.
- Hamblett, L. S. T. Ring main metering. 1308.
- Hamer, E. G. Slotted line impedance measurements. 1982.
- Hamerling, T. s. Aten jr., A. H. W. 2024.
- Harmers, Bernard s. Recksiedler, Arthur. 1163.
- , Morton s. Coester, F. 82.
- Hamill, William H. and Williams jr., Russell R. Scavenger effect in the n, γ reaction in carbon tetrachloride. 58.
- Hamilton, D. R. s. Christensen, R. L. 1612.
- s. Reynolds, J. B. 1808.
- s. Alford, W. Parker. 1345.
- s. Daubin, Scott C. 1580.
- , J. F. and Hamm, F. A. Distant packing of synthetic lattices. 2099.
- and Castle, J. W. Displacement of latent image in photographic emulsion grains. 1466.

- Hamilton, R. J.* Relation between free falling speed and particle size of air borne dusts. 2224.
- and *Phelps, B. A.* Production of transparent profiles of dust particles as an aid to automatized particle counting. 1843.
- *Holdsworth, J. F.* and *Walton, W. H.* Factors in the design of a microscope eyepiece graticule for routine dust counts. 2191.
- , *T. D. S.* and *Wright, G. T.* Transit time spread in electron multipliers. 1060.
- , *W. C.* Molecular orbital treatment of diborane as a four-centre, four-electron problem. 1810.
- Hamlin, Daniel A. s.* *Merritt, Jack.* 1527.
- Hamm, F., A. s.* *Hamilton, J. F.* 1466, 2099.
- Hamme, H. W., Grove, E. L.* and *Kassner, J. L.* Explanation of certain types of curves found in high-frequency techniques. 1230.
- Hammel, Edward, F. s.* *Kilpatrick, John E.* 1647, 2315.
- , *J. E.* and *Kephart, J. F.* Distribution of the number of prompt neutrons from the spontaneous fission of Pu^{240} 1544.
- Hammer, C. L.* and *Bureau, A. J.* Prompt destruction of the electron beam in a conventional synchrotron. 1328.
- *s. Pidd, R. W.* 1598.
- , *J., Malamud, H.* and *Bederson, B.* Low-energy scattering of electrons by atoms. 779.
- Hammersley, J. M.* Tables of complete elliptic integrals. 495.
- and *Nelder, J. A.* Sampling from an isotopic Gaussian process. 184.
- *s. Eycions, D. A.* 245.
- Hammond III., Harry K.* Calibration of reflectance standards for photoelectric tristimulus colorimetry. 172.
- , *V. J.* Magnetically-controlled mercury cut-off. 1722.
- Håmos, L. von, Jansson, B.* and *Persson, Th.* Evaluation of transients in linear systems. 1708.
- Hampel, B.* and *Luther, H.* Elektrostatische Aufladung strömender Flüssigkeiten. 2498.
- *s. Luther, Horst.* 1188, 1189.
- Hanaia, G. I. H. s.* *George, P.* 2310.
- Hancock, D. A.* and *Verdaguer, F.* Absolute determination of resonant energies for radiative capture of protons by sodium in the energy range below 530 kev. 598.
- *s. Hunt, S. E.* 73.
- , *N. H. s.* *Charlesby, A.* 267.
- Handler, Harry E.* and *Richardson, J. Reginald.* Gamma-gamma directional correlation in the $\text{Cl } 34 \rightarrow \text{S}^{34}$ decay. 592.
- Handley, R. s.* *Barber, C. R.* 1957.
- , *T. H.* and *Lyon, W. S.* Neutron-deficient activities of terbium. 1547.
- and *Olson, E. L.* Holmium. 167, 955.
- *s. Blosser, H. G.* 1541.
- *s. Cohen, B. L.* 1540.
- *s. Lyon, W. S.* 2027.
- Haneman, D.* Expression for the α cut-off frequency in junction transistors. 1655.
- Hanke, W.* Affine Abbildung. 688.
- Optische Umwandlung des allgemeinen Vierecks zum Parallelogramm. 1484.
- Hanle, W.* und *Niermann, H.* Anregung von Leuchtstoffen durch aktive Gase. 2208.
- und *Riede, D.* Anregungs- und Ionisierungsfunktionen beim Stoß schneller Elektronen. 2051.
- Hanley, L. D. s.* *Thornton, C. G.* 2137.
- Hanna, S. S. s.* *Class, C. M.* 2006.
- *s. Fowler, J. M.* 959.
- *s. Frost, R. T.* 1575.
- *s. Gelinis, R. W.* 1366.
- *s. Lavier, E. C.* 1367.
- *s. Segel, R. E.* 1377.
- *s. Severiens, J. C.* 1366.
- Hannah, K. W., Joncich, M. J.* and *Hakerman, Norman.* Automatic system for the study of catalytic reactions involving gases. 29.
- Hannan, E. J.* Test for singularities in Sydney rainfall. 1487.
- Hannay, N. B.* Mass spectrograph for the analysis of solids. 37.
- , *Haynes, J. R.* and *Shulman, R. G.* Interaction of traps and heat treatments in silicon. 1029.
- *s. Fuller, C. S.* 1028.
- Hannes, H.* Messung der Lichtablenkung im Interferenzrefraktor. 1462.
- Eigenschaften des Schattenverfahrens. 1462.

- Hans, H. S., Saraf, Babulal and Mandeville, C. E.* Coincidence studies of the disintegration of Pm^{151} and Nd^{147} . 1163.
- *s. Rohlman, M. A.* 1163.
- , *W. und Jensch, W.* Theorie der polarographischen Kurve. IV. Gültigkeit der korrigierten Ilkovič-Gleichung. 2155.
- , *Henne, W. und Meurer, E.* Theorie der polarographischen Kurve. VII. Diffusionsbedingte polarographische Stromstärke. 2155.
- Polarographische Reaktionskinetik. 663.
- *s. Henke, Karl-Heinz.* 664.
- *s. Wahlén, Erik.* 2155.
- Hansard, Sam L. and Comar, C. L.* Radioisotope procedures with laboratory animals. 2551.
- Hanscome, T. D. and Willett, D. K.* Magnetic analyzer for nuclear reactions. 931.
- *s. Holmgren, H. D.* 950.
- Hansen, G.* Berechnung des Filterfehlers. 495.
- , *Lise s. Bak, Borge.* 434.
- , *L. F. s. Aggson, T. L.* 2353.
- , *Walter.* Untersuchungen über Meeresströmungen. 1702.
- Neuzzeitliche Probleme der Ozeanographie. 2578.
- Triftstrom und Windstau. 2578.
- Winderzeugte Strömungen im Ozean. 2578.
- Golfstromproblem. 2578.
- Windstau und Triftstrom im Modellkanal. 2582.
- , *W. W. s. Hofstadter, R.* 88.
- *s. McIntyre, J. A.* 88.
- Hanst, Philip L. s. McClure, Donald S.* 439.
- Hanszen, Karl-Joseph.* Einfluß der Magnetisierung auf galvanische Ketten und chemische Reaktionen. 2157.
- Hanszen, Karl-Joseph.* Galvanische Ketten im inhomogenen Magnetfeld. 2158.
- Hanzon, V. s. Sjöstrand, F. S.* 1691.
- Hapgood jr., Norman s. Carpenter, Robert O'B.* 765.
- Hara, Osamu and Okonogi, Hisaichiro.* Gauge invariance in electrodynamics and the self-energy problem of the photon. 2268.
- , *Marumori, Toshio, Ohnuki, Yoshio and Shimodaira, Hajime.* Conservation of heavy particles. 1332.
- — — Universal Fermi interaction. 2269.
- Harang, L. s. Omholt, A.* 2242.
- Harasima, Akira.* Atomic distribution functions of liquids. 2427.
- Harbeke, Günter und Lautz, Günter.* Optische Untersuchungen über die Halbleitereigenschaften von As- und Zn_3As_2 -Schichten. 2469.
- Harbottle, G. s. Scharff-Goldhaber, Gertrude.* 1552.
- Activation of nuclear isomers by gamma rays. 240.
- Szilard-Chalmers reaction in crystalline compounds of chromium. 2021.
- *s. Fishman, Lawrence M.* 1148.
- Harbower, G. A.* Energy spectra of secondary electrons from Mo and W for low primary energies. 674.
- Hardeman, G. E. G. and Poulis, N. J.* Antiferromagnetic resonance at low frequency. 1642.
- Harden, B. N.* Diffraction of electromagnetic waves by a half-plane. 1875.
- * *Harder, Walter und Pannier, Fritz.* Physik der Heizungs- und Lüftungstechnik. 534.
- Harding, G. N.* Absolute calibration of neutron counters with Po- α -Be. 1515.
- Average number of neutrons per fission from uranium and bismuth when bombarded with 147 MeV protons. 2020.
- , *J. B.* Mass measurements on fast particles ejected from cosmic ray stars. 2021.
- , *R. s. Chesnut, W. G.* 418.
- Hardung, Victor s. Betticher, André.* 696.
- *s. Schaffhauser, Edith.* 696.
- Hardy, James D. s. Clark, Carl.* 2198.
- , *R. C. s. Swindells, J. F.* 202.
- Hare, E. F. s. Fox, H. W.* 2444.

- Hare, W. F. J. Allin, Elizabeth J. and Welsh, H. L.* Infrared absorption of liquid and solid hydrogen with various ortho-para ratios. 1826.
- *s. Allin, Elizabeth J.* 636, 1826.
- *s. Chisholm, D. A.* 253.
- Hargreaves, M. E. s. Clarebrough, L. M.* 374.
- Hariharan, P.* Resolution of an annulus test object. 684.
- and *Bhalla, M. S.* Logarithmic megohmmeter. 2100.
- Harikishandass s. Ghai, M. L.* 2275.
- Harkema, P. s. Cohen, J. W.* 2501.
- Harker, George S.* Instrument for the study of binocular vision. 1476.
- Harkness, A. L. s. Amdur, I.* 94, 992.
- *s. Fields, P. R.* 1578.
- *s. Wilkins, F. J.* 811.
- Harlen, F.* Design of a condenser dosimeter. 1477.
- Harley, John s. Fresco, James.* 2009.
- Harlow, M. V., Marion, J. B. Chapman, R. A. and Bonner, T. W.* Energy levels in F^{19} from a study of the $O^{18}(d, n)F^{19}$ reaction. 1570.
- Harman, John W. s. Weinreb, Stanley.* 2223.
- , *T. C., Miller, S. E. and Goering, H. L.* Preparation and electrical properties of Bi_2Te_3 . 1653.
- *Willardson, R. K. and Beer, A. C.* Comparison of Hall and magnetoresistance phenomena in InSb with those in germanium. 134.
- — — Effect of impurities on mobility in n-type InSb. 1035.
- *s. Willardson, R. K.* 128, 471.
- Harmer, David E., Martin, Joseph H. et Anderson, Leigh C.* Effects du rayonnement gamma sur la chloration des hydrocarbures aromatiques. 614.
- Harmsen, G. J., Schooten, J. van and Overbeek, J. Th. G.* Viscosity and electroviscous effect of the AgI sol. II. Influence of the concentration of AgI and of electrolyte on the viscosity. 1206.
- — and *Waarden, M. van der.* Electroviscous effect. 1636.
- Harmuth, Henning.* Programmsteuerung einer elektronischen Rechenmaschine. 358.
- Unscharferelation in den Dirac-Gleichungen und in der relativistischen Schrödinger-Gleichung. 1924.
- Harnik, E., Many, A., Margoninski, Y. and Alexander, E.* Correlation between surface recombination velocity and surface conductivity in germanium. 1652.
- *s. Many, A.* 1431, 1652.
- Harper, A. F. A. s. Jaeger, J. C.* 350.
- , *P. G.* Single band motion of conduction electrons in a uniform magnetic field. 1426.
- General motion of conduction electrons in a uniform magnetic field, with application to the diamagnetism of metals. 1426.
- and *O'Dwyer, J. J.* Theory of a dielectric loss in long chain polar compounds. 1011.
- , *W. R.* Adhesion and charging of quartz surfaces. 147.
- Harpur, W. W. and Ubbelohde, A. R.* Conductance mechanisms and the thermal transition in caesium chloride. 1435.
- , *Moss, R. L. and Ubbelohde, A. R.* Electrical conductance mechanism in solid caesium halides. 1037.
- Harrand, Monique.* Constante de diffusion du benzène liquide. 2076.
- Harrap, B. S. and Heymann, E.* Constitution of ionic liquids. I. Electric conductivity and viscosity of the molten salt systems, $AgCl + AgBr$, $PbCl_2 + PbBr_2$, $AgCl + PbCl_2$, $AgCl + KCl$, $AgBr + KBr$. II. Viscosity of the molten salt systems, $PbCl_2 + KCl$, $CdCl_2 + KCl$, $CdCl_2 + NaCl$, $PbCl_2 + CdCl_2$. 1230.
- Harrer, J. M.* Reactor operation. 2348.
- Harriman, John M.* Numerical values for hydrogen fine structure. 1612.
- Harrington, E. L.* High-speed revolution counter. 197.
- , *R. F.* Field equivalence theorems and their circuit analogues. 1645.
- Harris, B. L. s. Lloyd, Carroll L.* 2446.
- , *D. R. and Hodson, A. L.* Production of V° particles in copper. 43.
- *s. Hodson, A. L.* 395.
- , *E. G.* Disordering of polyatomic solids by neutrons. 1174.
- , *G., Orcar, J. and Taylor, S.* Lifetimes of the τ^+ and K_L^- mesons. 1992.
- — — Heavy meson fluxes at the cosmotron. 2353.
- , *G. G.* K mesons produced by 2.2 and 3 Bev protons. 1134.

- Harris, G. T. and Child, H. C. Uranium in heat-resisting alloys. 336.
- , G. W. s. Gordon, R. L. 1001.
- , J. C. s. Green, D. W. 579, 977.
- s. Milani, S. 1371.
- s. Smith jr., Robert T. 1749.
- , Louis and Loeb, Arthur L. Evaluation and analysis of optical and electrical constants of thin films as functions of reflectance and transmission data by electronic digital computation. 2091.
- , O. R. s. Connelly jr., J. J. 631.
- , P. M. s. Goyan, Frank M. 163.
- , Payne S. s. Brennan, James T. 1694.
- , W. W. and Ball, Frances L. Growth of oxide layers on nickel single crystals. 1842.
- — Formation and growth of cuprous oxide nuclei on the 311 face of copper single crystals. 2210.
- Harrison, Anna J. s. Christie, Margaret I. 783.
- s. Tannenbaum, Eileen. 439.
- , A. W. s. Jones, A. Vallance. 886.
- jr., Don E. Statistical mechanics of cathode sputtering. 1044.
- , F. B. Large-area liquid scintillation counters. 229.
- Slow component in decay of fluors. 1122.
- Cowan, C. L. jr. and Reines, F. Electron spectrum from μ -meson decay. 398.
- s. Cowan, C. L. 2355.
- , F. W. Aspects in the design of a torque magnetometer. 1016.
- , George R. and Stroke, George W. Interferometric control of grating ruling with continuous carriage advance. 1460.
- , J. C. Gravity anomalies in the eastern Mediterranean. 883.
- , L. G. and McDowell, C. A. Catalysis of the para-hydrogen conversion by zinc oxide. 1114.
- , Melvin A. Townsend's first ionization coefficient in nitrogen. 1866.
- , S. E. s. Krissman, C. J. 1898.
- , V. G. W. and Poulter, S. R. C. Gloss measurement of high-gloss papers. 2528.
- , W. A. and Seitz, Frederick. Theory of radiation damage. 1174.
- Harriss, V. G. s. Rogers, E. C. 1231.
- Harrower, G. A. Auger Electron emission in the energy spectra of secondary electrons from Mo and W. 2500.
- Hart, Donald P. s. Vadja, John. 12.
- , Edwin J. and Gordon, Sheffield. Gas evolution for dosimetry of high gamma, neutron fluxes. 1988.
- — et Hutchison, Dwight A. Formation d'eau oxygénée par action des rayons gamma sur des solutions aqueuses $^{16}\text{O}^{18}\text{O}\cdot\text{H}_2^{16}\text{O}$. 612.
- s. Gordon, Sheffield. 1115.
- , F. Transient pulse width and pulse amplitude meter. 1640.
- , J. C. s. Davis, D. M. 1989.
- , J. M. van der s. Koudijs, B. 2012.
- , Pembroke J. s. Tuve, Merle A. 518.
- , R. K. Oxidation of aluminium in dry and humid oxygen atmospheres. 2442.
- , Robert W. and Guier, William H. Statistical treatment of weakly interacting particles in a newtonian potential. 1280.
- Gray, Ernest P. and Guier, William H. Statistical theory of atomic excitation by electron impact. I. Theoretical development. Statistical approach to collision processes: application to atomic excitation. 2051.
- s. Gray, Ernest P. 1191.
- Harten, H.-U. und Schultz, W. Einfluß von Diffusionslänge und Oberflächenrekombination auf den Sperrschicht-Photoeffekt an Germanium. 1217.
- s. Schultz, W. 1215.
- Harth, E. M. and Block, M. M. Decay of an anomalous charged K-meson. 1522.
- s. Block, M. M. 9, 1339, 1521, 1753.
- s. Slaughter, G. G. 1515.
- s. Birnbaum, Milton. 40.
- Hart, Victor E. Semimicro dilution viscometer. 1943.
- Graphic method for single-point determination of intrinsic viscosity. 2079.
- Hartek, Paul and Faltings, Volkert. Helium-3 problem of the atmosphere. 2250.
- Harth, E. M. s. Fairbank, W. M. 1976.
- Harling, Hans, * 15. 2. 1869, † 21. 9. 1951. 2254.
- Hartley, F. s. Ward, W. 2216.
- , R. V. L. System of logarithmic units. 191.
- Hartman, P. L. s. Nelson, J. R. 1826.
- Hartmann, John. Monoscope tube for computer and other applications. 358.
- , Max. Geistesgeschichtliche Grundlagen der Naturwissenschaften. 2272.

- Hartmann, N. s. Sheer, C.* 1119.
Hartmann-Fahnenbrock, M. s. Stuart, H. A. 266.
Hartner, Elizabeth. Test instruments using eddy-current principle. 332.
Hartogh, Chr. D. s. Tolhoek, H. A. 1140.
Hartree, D. R. Interpolation of atomic wave functions. 188.
Hartridge, H. Scintillation of stars. 2230.
Hartshorn, L. and Denton, J. J. Calibration of inductance standards at radio frequencies. 2453.
Hartsough, Walter s. Cork, Bruce. 416, 601.
Hartz, T. R. Radio star scintillations and the ionosphere. 707.
 — Solar noise outburst of January 15, 1955. 877.
 — Radio star scintillations and the ionosphere. 2234.
 — *s. Hay, D. R.* 1245.
Hartzler, A. J. s. Siegel, R. T. 604, 2391.
Harvey, A. F. Instruments for use in the microwave band. 2180.
 —, *B. G.* Systematics of neutron capture cross sections. 1593.
 — *s. Asaro, Frank.* 1564.
 —, *J. A., Hughes, D. J., Carter, R. S. and Pilcher, V. E.* Spacings and neutron widths of nuclear energy levels. 1549.
 — *s. Hughes, D. J.* 964, 1559.
 — *s. Pilcher, V. E.* 1554.
 — *s. Stolovy, A.* 1554.
 — Level spacings of heavy nuclei. 1152.
 —, *R. A. s. Beattie, J. W.* 1079.
 — *s. Laughlin, J. S.* 2557.
Harwood, J. Spaced-receiver experiments on radio waves of 19-km wavelength. 1450.
 —, *M. G.* Methods of dispersing difficult powders. 2098.
Hasebe, K. and Yamamoto, K. Streamer theory and the value α/p . 1233.
 —, *T. s. Yoshikawa, S.* 899, 2350.
Hasegawa, Hiroichi s. Komatsuzawa, Akira. 2349.
 —, *Kazu and Azuma, Shūkō.* π -nucleon scattering and the damping effect. 2366.
 —, *Saburo s. Wexler, Arnold.* 2332.
 —, *Y. and Kawakubo, S.* Measurements of reflectivity of glass surface marred by falling carborundum powder. 869.
Hashimoto, Kimio s. Ryu, Norio. 2395.
 —, *Y. s. Kimura, R.* 1273.
Hasimoto, Hidenori. Flow of a viscous fluid past an inclined elliptic cylinder at small Reynolds numbers. 2292.
 —, *Zirō,* Limiting line in a simple wave. 2290.
 — Cross Mach lines in simple waves in the plane supersonic flow. 2294.
 — Plane jet of gas emitted from a nozzle with supersonic velocity. 2295.
Haskin, D. M., Bowen, Theodore, Glasser, R. G. and Schein, Marcel. Binding energy of tritium hyperfragments. 2351.
 —, *Williams, D. B., Goodman, E. and Schein, Marcel.* Analysis of capture stars of K^- -mesons from the Berkeley bevatron. 1993.
 — *s. Cavanaugh, R. E.* 1993.
 — *s. Glasser, R. G.* 1147, 1356.
 — *s. Leenov, Daniel.* 1993.
 — *s. Orear, Jay.* 405.
 — *s. Schein, Marcel.* 1130, 1147, 1357, 1993, 1997.
 — *s. Williams, D. B.* 2000.
Haslam, R. N. H. s. Greenberg, L. H. 1354.
Hasler, M. F. s. Kemp, J. W. 502.
Hass, Georg and Bradfort, Alan P. Anodically produced multiple oxide films for increasing the reflectance of evaporated aluminum. 639.
 — and *Meryman, H. T.* Silicon monoxide and its use in electron microscopy. 1889.
 —, *Schroeder, H. H. and Turner, A. F.* Mirror coatings for low visible and high infrared reflectance. 2520.
Hasson, F. X. Thurmond, C. D. and Trumbore, F. A. Melting point of germanium. 2316.
Hasted, J. B. Exchange of charge between ions and atoms. 779.
 — and *Smith, R. A.* Partial charge transfer of double charged ions. 2405.
 — — Detachment of electrons from negative ions. 2414.
 — *s. Buchanan, T. J.* 1902.
Hastings, J. M. s. Brockhouse, B. N. 1382.
Hatano, Shigeaki. Magnetic exchange moment to order eg^4 in adiabatic approximation. 2271.
Hatch, A. J. and Cope, D. F. Flashback teaching technique applied to a block-and-gap physics course. 1919.
 — and *Williams, H. Bartel.* Pressure limits of the high-frequency secondary electron resonance breakdown mechanism. 841.

- Hatcher, R. D. s. Klerer, M.* 365.
- Hatfield jr., Edward J.* Precision balances for radioisotopic applications. 1938.
- , *P. s. Patton, R. G.* 335.
- Hatherton, T.* Permanent magnetization of horizontal volcanic sheets. 521.
- Hatkin, Leonard.* Analysis of propagating modes in dielectric sheets. 2505.
- Hatton, J.* Effect of pressure on the superconducting transition temperature of thallium. 2114.
- Hattori, Manabu, Hisatake, Kazuo, Mikumo Takasi and Momota, Teruo.* Gamma rays from the reaction $^{27}\text{Al}(\text{p}, \gamma)^{28}\text{Si}$. 772.
- Hattwick, Robert G.* Dark adaptation to intermediate levels and to complete darkness. 513.
- Hauer, Fritz und Keck, Gertrud.* Sichtbarmachung von Ultraschall. 2305.
- Hauße, Karl und Kofstad, Per.* Mechanismus der Oxydation von Cu_2O bei hohen Temperaturen. 289.
- *Grünwald, Horst und Tränckler-Greese, Ruth.* Elektrische Leitfähigkeit von Titandioxyd mit Fremdoxyden. Einbaumechanismus von Chromoxyd in TiO_2 . 1033.
- Haug, Albert s. Esprester, August.* 481.
- , *P. s. Kortüm, G.* 1511.
- Haugerud, Ö. und Sörensen, S. O.* Mesonic decay of a H_1^4 nucleus. 1334.
- Hauk, V. und Krings, A.* Gitterkonstanzmessungen mit Elektronenstrahlen an dünnen Silberschichten. 257.
- Ermittlung von Eigenspannungen aus röntgenographischen Gitterkonstanten-Messungen. 2212.
- Eigenspannungen nach plastischer Zugverformung. 2213.
- und *Hauk, Johanna.* Debye-Scherrer-Interferenzen bei Bragg-Winkel um 85° . 789.
- , *Johanna s. Hauk, Viktor.* 789.
- Haul, R. A. W. und Swart, E. R.* High vacuum magnetic mercury cut-off. 2273.
- Haus, H. A. und Robinson, F. N. H.* Minimum noise figure of microwave beam amplifiers. 2186.
- *s. Robinson, F. N. H.* 1667.
- Hausdorff, Harry s. Coates, Vincent, J.* 1252.
- Hauser, F.* Entwicklung mikrophotographischer Apparate bei der Firma Zeiss in dem ersten Jahrhundert ihres Bestehens. 312.
- Hausser, K. H.* Temperaturabhängigkeit der magnetischen und optischen Eigenschaften organischer Stickstoff-Radikale. 1212.
- Hauser, K. H. s. Bayer, E.* 783.
- Hautot, Antoine et Sauvenier, Henri.* Action de l'acide chromique sur l'image latente interne des émulsions bromure et au chlorure d'argent. 2203
- — Solarisation des émulsions au chlorure d'argent. 2203.
- — Effets Herschel et Debort dans les émulsions au bromure et au chlorure d'argent. 2204.
- Hauver, G. s. Zernow, L.* 1459.
- und *Zernow, Louis.* Ultra high speed cine-microscopy and time resolved spectroscopy. 496.
- Havas, Peter.* Range of application of the Lagrange and Hamilton formalisms. 371.
- Havelock, Sir Thomas.* Waves due to a floating sphere making periodic heaving oscillations. 18.
- Havemann, R., Gamon, A. und Ernst, H.* Lichtstarker Spiegeldoppelmonochromator. 854.
- Havens jr., W. W. s. Gould, F. T.* 1383.
- *s. Grimm, G.* 1326.
- Havill, J. R. s. Tauffest, G. W.* 976.
- Havlíček, F. I.* Einfluß des Abblendens auf aberrationsbehaftete Fotoobjektive. 1061.
- Genähertes Entropiediagramm für Uranhexafluorid. 1109.
- Set of classical methods for the computation of optical systems. 1465.
- Formula for determining the wave surface if the spherical aberrations are known. 2190.
- und *Dobovíček, B.* Photodisintegration of C^{12} and O^{16} . 2015.
- , *F. J.* Optische Toleranzen. 860.
- Haward, R. N.* Termination of biradicals in a polymerizing system. 802.
- Hawkes, H. D. und Arnold, A. H. M.* Wattmeters. 1015.
- , *M. s. Burnett, L. C.* 2173.
- Hawkings, R. C. s. Bartholomew, Rosalie M.* 239.
- Hawkins, G. A. s. Willman, B. T.* 20.
- , *J. Erskine und Eriksen, Warren T.* Physical and thermodynamic properties of terpenes. II. Heats of com-

- bustion of some terpene hydrocarbons. 212.
- Hawkins, N. J. s. *Matraw, H. C.* 1958.
- , *T. H.* s. *Moss, T. S.* 2131.
- , *W. B.* Alignment of sodium atoms. 1395.
- Hawksley, P. G. W. Theory of particle sizing and counting bay track scanning. 2094.
- , *Blackett, J. H., Meyer, E. W.* and *Fitzsimmons, A. E.* Design and construction of a photoelectronic scanning machine for sizing microscopic particles. 2094.
- Hawley, J. E. and *Rimsaite, Y.* Spectrographic studies of Nova Scotia coals. 504.
- s. *Lewis, C. L.* 504.
- s. *McDonald, Graham.* 504.
- Hawliczek, F. Lichtimpulsverfahren zur automatischen Auswertung von radioaktiv markierten Papierchromatogrammen und Elektropherogrammen MIR 507 a. 1517.
- Stabilisierte Kaskadenhochspannung für den Betrieb von Geiger-Müller-Zählrohren. 221.
- Haworth, L. J. s. *Green, G. K.* 1751.
- Hawthorne, W. R. Growth of secondary circulation in frictionless flow. 204.
- and *Martin, Moira E.* Effect of density gradient and shear on the flow over a hemisphere. 375.
- Haxby, Bernard V. Optical measurements on additively colored MgO single crystals. 630.
- , *R. O.* s. *Matheson, W. E.* 1774.
- s. *Terwilliger, K. M.* 1328.
- s. *Voss, J. R.* 397.
- Hazel, O. und *Schumann, G.* Selbstreinigung der Atmosphäre. 1702.
- , *Jensen, J. H. D.* and *Suess, H. E.* Schalenmodell des Atomkerns. 1137.
- Hay, D. R. and *Hartz, T. R.* Thunderstorm signals at very-high frequency and ultra-high frequency. 1245.
- and *Langille, R. C.* VHF and UHF propagation in Central Canada. 677.
- , *H. J.* s. *Carver, J. H.* 768.
- Hayakawa, Satio and *Kikuchi, Ken.* Gamma ray energy spectrum from iron bombarded by 14-Mev neutrons. 967.
- and *Yoshida, Shiro.* Inelastic scattering by rotational excitation. 1359.
- — Inelastic scattering of neutrons by rotational excitation. 2391.
- Hayakawa, Satio, *Kawaguchi, Masaaki* and *Minami, Shigeo.* Kinematical investigations of meson-nucleon reactions. 768.
- , *Kawai, Mitsuji* and *Kikuchi, Ken.* Nuclear reactions at moderate energies and Fermi gas model. 2010.
- s. *Fujimoto, Yoichi.* 1388.
- Hayashi, Chihiro. Forced oscillations with nonlinear restoring force. 544.
- Subharmonic oscillations in nonlinear system. 545.
- Hamiltonian formalism in non-local field theories. 2268.
- , *Izuo and Ōno, Kazuo.* Fine and hyperfine structure of paramagnetic resonance spectra in several diluted manganese salts. 2462.
- s. *Kumagia, Hiroo.* 2460.
- s. *Ōno, Kazuo.* 2462.
- , *Shizuo.* Viscoelasticity of linear polymeric substance. 1202.
- , *Takeo, Ishizaki, Yoshihide* and *Kumabe, Isao.* Half-life of ThC'. 2362.
- *Kawamura, Mitsuhiro* and *Aoki, Atsushi.* Directional correlation of the Ti^{46} gamma-gamma cascade. 1781.
- Hayashida, Kensei s. *Yoshida, Tetsuo.* 2307.
- Haycock, E. W. s. *Alder, B. J.* 1111.
- , *P. J.* s. *Garner, F. H.* 206.
- Hayden, R. J. s. *Wasserburg, G. J.* 516, 1482, 1750.
- Haydon, S. C. s. *Crompton, R. W.* 1231, 2490.
- Hayes, John D. Optical characteristics of anamorphic lenses. 156.
- , *W.* Spectrum of MnBr in the photographic infra-red. 101.
- , *Wallace D.* Equation for a damped pendulum under constant torque. 1447.
- Hayman, C. s. *Gross, P.* 2310.
- , *H. J. G.* Application of the Debye-Hückel theory to polyions. I. Range of applicability of the Debye limiting law. 2481.
- Haynes, J. R. Recombination radiation from silicon. 1433.
- and *Westphal, W. C.* Radiation resulting from recombination of holes and electrons in silicon. 2131.
- s. *Hannay, N. B.* 1029.
- , *S. K.* s. *Burford, A. O.* 1549.
- s. *Tidwell, Marvin.* 684.

- Hays, Earl E.* Time of flight mass spectrometer. 1516.
- Hayward, Evans s. Fuller, E. G.* 1387.
- , *H. N.* Electrical instruments and regulators. 1207.
- , *R. W. and Hoppes, D. D.* Disintegration of selenium-73. 1152.
- — Inner bremsstrahlung from V^{49} . 1369.
- — Disintegration of selenium-73. 2029.
- — and *Ernst, H.* Disintegration of niobium-91 and -92. 590.
- Haywood, C. A.* Approximation for the high order phase shifts in the elastic scattering of slow protons in the inert gases. 418.
- , *J. H.* Equations of motion of rotating bodies in general relativity. 715.
- Hazard, C. s. Brown, R. Hanbury.* 2236.
- Hazen, W. E.* Energy of electrons or photons from their cascade showers in copper. 1337.
- Hazzaa, I. B. s. Sedra, R. N.* 1914.
- Hazzard, George W. s. Fox, William M.* 2301.
- Head, A. K.* Interaction of dislocations and boundaries. 2071.
- and *Louat, N.* Distribution of dislocations in linear arrays. 1408.
- Heading, J.* Reflexion of vertically-incident long radio waves from the ionosphere when the earth's magnetic field is oblique. 710.
- Heald, Mark A. and Beringer, Robert.* Hyperfine structure of nitrogen. 621.
- *s. Beringer, Robert.* 429.
- Heaps, H. S.* Effect of a random noise background upon the detection of a sinusoidal signal. 2179.
- und *Herzberg, G.* Intensity distribution in the rotation-vibration spectrum of the OH molecule. 1700.
- *s. Campbell, J. E.* 1305.
- Hearmaun, R. F. S. and Adams, E. H.* Flexural vibrations of an end-loaded vertical strip. 13.
- Heath, O. V. S.* Light source for Köhler illumination. 322.
- Heathcote, V. A.* Conduction-cooled vapour traps. 1722.
- Hebb, Elizabeth.* Disintegration of Te^{131} . 586.
- Hebbard, D. F. and Wilson, P. R.* Effect of multiple scattering on electron energy loss distributions. 2393.
- Heber, G.* Tomonagas Methode der Behandlung mittelstark gekoppelter Felder. Methodische Studien. I. II, 5, 6.
- Theorie der Elementarteilchen. I. 720.
- Tomonagas Methode der Behandlung mittelstark gekoppelter Felder. 1093.
- Heberle, Juergen W., Reich, Haskell A. and Kusch, P.* Hyperfine structure of the metastable hydrogen atom. 1611.
- Hecht, C. E. s. Stockmayer, W. H.* 805.
- , *K.* Entwicklung neuartiger physikalischer Unterrichtsgeräte. 2258.
- Heckman, F. A. s. Swerdlow, Max.* 1898.
- , *H. H. s. Goldhaber, S.* 1131.
- , *Giles, Peter C. and Barkas, Walter H.* High-energy gamma ray studies with nuclear track emulsions. 1121.
- , *Goldhaber, S. and Smith, F. M.* Observations of K^+ mesons. 1135.
- , *Smith, Frances M. and Barkas, Walter H.* Masses of positive K-particles. II. Method, analysis, and results. 1758.
- *s. Barkas, Walter H.* 1748.
- *s. Smith, Frances M.* 1757.
- Heckmann, Klaus.* Leitfähigkeitsmessungen und Aktivitätsbestimmungen an Seifen. 2484.
- Heckrotte, Warren.* Production of high energy neutrons and deuterons from the stripping of helium. 977.
- *s. Fernbach, Sidney.* 414.
- Hector, F. S. s. Meek, J. H.* 1484.
- Heddle, D. W. O. s. Gabriel, A. H.* 2196.
- Hedges, J. M. s. Evans, T.* 2203.
- Hedvall, J. Arvid.* Corrosion of non-metal materials: an urgent research project. 511.
- Hée, A., Jarovoy, M. et Vitart, M.* Role de l'abrasif dans la contamination radioactive des lames minces minéralogiques. 1283.
- , *Coche, A., Keller, P., Jarovoy, M. et Wack, M.* Constante de désintégration β du k^{40} . 948.
- Heel, A. C. S. van.* One radius doublets. 320.
- Heer, E. und Rütschi, R.* Nachweis des elektrischen 16-Pol-Moments von Cd^{111} . 948.
- , *Gimmi, F. und Kündig, W.* Richtungskorrelationsmessungen an Ta^{181} . 1359.
- *s. Gimmi, F.* 2385.

- Heer, E.* Influence des électrons périphériques de l'atome sur la corrélation angulaire de rayonnements nucléaires successifs. 1791.
- Corrélations angulaires des électrons de conversion, avec une étude particulière de la cascade du ^{111}Cd . 1794.
- Influence of external fields on angular correlation. 2030.
- , *Rüetschi, Rudolf* und *Scherer, Paul*. Magnetisches Moment des 480 kV-Niveaus von Ta^{181} . 948.
- s. *Albers-Schönberg, Heinz*. 285.
- Hefferan, J. s. Romero-Juárez, A.* 1916.
- Heffner, H. s. Clogston, A. M.* 498.
- Hefner-Alteneck, Friedrich von*. 2255.
- Heft, Robert E.* and *Libby, W. F.* Absolute cross sections for deuterons on beryllium. 1169.
- Hegemann, F., Giesen, K.* und *Sybel, Ch. v.* Quantitative spektrochemische Bestimmung der Säureelemente in Siliciumcarbid mit dem Kohlelichtbogen. 866.
- Hegyi, I. J.* Ferromagnetic spinels with rectangular hysteresis loops. 2456.
- Heiberg, E., Kruse, U., Marshall, J. Marshall, L.* and *Solmitz, F.* Slowing down of polarized protons. 602.
- , *S. A.* Reaction $\text{B}^{11}(\text{n}, \alpha)\text{Li}^8$. 573.
- , *Jams, D. B.* and *Alexander, T. K.* Angular distribution of the gamma rays from the reaction $\text{C}^{12}(\text{p}, \gamma\text{p})\text{C}^{12}$. 1351.
- s. *James, D. B.* 929, 1515.
- Heidmann, J.* Interaction des nucleons de quelques centaines de mégaelectronvolts avec les nucléons et les noyaux. 2013.
- Heikes, R. R.* Magnetic transformation in MnBi . 1641.
- Relation of magnetic structure to electrical conductivity in NiO and related compounds. 1649.
- Heikkilä, W. J.* and *Hallett, A. C. Hollis*. Viscosity of liquid helium II. 1829.
- Heiland, G.* Elektrische Leitfähigkeit an der Oberfläche von Zinkoxydkristallen. 473.
- Heiligmann, Randall G.* Ionic polymerization of mono-olefinic hydrocarbons at low temperature. Characterization of the alpha-methylstyrene-sulfuric acid system. 452.
- Heiling, H. s. Fischer, H.* 2147.
- Heilmann, René* et *Arnard, Paul*. Fréquence Raman de la liaison carbonyle dans les cétones aliphatiques ramifiées. 1189.
- Heim, Th.* Elektro-Mikrodynamometer. Apparat zur Messung kleiner Drehmomente. 909.
- Elektro-Mikrodynamometer. 1938.
- Heims, S. P., Yennie, D. R.* and *Ravenhall, D. G. W. K. B.* approximation to phase shifts. 608.
- Hein, R. A.* Superconductivity of hafnium. 1647.
- Heinberg, M. s. Page, L. A.* 1129.
- Heiner, G. s. Sommermeyer, K.* 1693.
- Heintzenberg, Fr.* Lichttechnische Arbeiten Friedrich von Hefner-Altenecks. 2255.
- Heiny, Richard L. s. Rose, Arthur*. 714.
- Heinz, W.* Konsistometer und Elektro-Rotations-Viskosimeter. 1942.
- Heinze, Dieter.* Temperaturabhängigkeit des Reflexionsvermögens von Cu, Ag, Au, Al und Ni. 2198.
- und *Schmelzer, Christoph*. Dämpfungs- und Beugungseigenschaften eines tiefen Metallspaltes. I. II. 315.
- Heirtzler, James R.* Electron transit times in Geiger counters. 35.
- Heisenberg, W.* Quantentheorie nicht-renormierbarer Wellengleichungen. 1093.
- , *Kortel, F.* und *Mitter, H.* Quantentheorie nichtlinearer Wellengleichungen. III. 1093.
- *— Naturbild der heutigen Physik. 535.
- Doubts and hopes in quantum-electrodynamics. 2268.
- Heitler, W. s. Arnous, E.* 898.
- Heitz, M. P. s. Winans, J. G.* 1618.
- Hélaine, H.* Mesure de la constante diélectrique et de l'absorption en ondes centimétriques. 2168.
- Held, E. F. M. van der.* Contribution of radiation to the conduction of heat. II. Boundary conditions. 2313.
- Hellens, R. L. s. Jennings, B.* 959.
- s. *Weddell, J. B.* 1595.
- Heller, L.* Structure of dicalcium silicate α -hydrate. 2066.
- , *S.* Untersuchung monomolekularer Filme. 2448.
- , *Th.* Xenon-Hochdruckbogen als Standardstrahler. 322.
- Hellmig, Ehrhard.* Bedingt-gleiche Farben und Farben mit Farbwerten Null. 2555.

- Hellstrand, Eric.* Sewdish heavy water reactor. Two kinetic experiments. 1988.
- Hellwarth, R. W. s. Woodgate, G. K.* 2007.
- Hellwege, K.-H.* Orientierung strahlender Dipole in Kristallen niedriger Symmetrie. 800.
- und *Schröck-Vietor, W.* Einfluß von Temperatur und Druck auf Kristallfeld und Elektronenterme in EuZn-Nitrat. 1183.
- Hellwig, Gerhard.* Bewegung geladener Teilchen in schwach veränderlichen Magnetfeldern. 249.
- Helm, R. H., Crowe, K. M. and Tautfest, G. W.* μ -e decay spectrum. 1524.
- s. *Crowe, K. M.* 1526.
- Helmcke, J.-G.* Theorie und Praxis der elektronenmikroskopischen Stereoaufnahmen. 691.
- Helmer, R. G. s. Cork, J. M.* 964, 1162, 1566, 2377.
- Helmy, Ehsan s. Lannutti, Joseph E.* 1997.
- Helstrom, C. W.* Resolution of signals in white, Gaussian noise. 2179.
- Hemmendinger, A. and Argo, H. V.* Reaction $D(t, \alpha)n$ at 1.5 Mev. 404.
- s. *Argo, H. V.* 573.
- , *Henry s. Davidson, H. R.* 860.
- Hempstead, C. F. s. Parratt, L. G.* 161.
- Hemptinne, M. de. s. Dibeler, Vernon, H.* 1618.
- Hendee, C. F. s. Fine, S.* 2050.
- Hendel, P. s. Armenteros, R.* 939.
- Henderson, C., Heymann, F. F. and Jennings, R. E.* Phase stability of the microtron. 1986.
- s. *Ellis, J.* 245.
- , *J. E. s. Schmidt, F. H.* 390.
- , *J. T. and Mungall, A. G.* Velocity of propagation of electromagnetic waves. 1096.
- , *W. J. s. Beattie, J. W.* 1079.
- s. *Campbell, C. G.* 2032.
- s. *Laughlin, J. S.* 2557.
- Hengstenberg, J.* Trübungstitrations-Methoden zur Bestimmung der Polydispersität. 1833.
- Hénin, Stéphane et Borgne, Eugène le.* Causes des propriétés magnétiques de certains sols. 278.
- Henke, Karl-Heinz und Hans, Willi.* Theorie der polarographischen Kurve. VI. Reaktionskinetisch bedingte polarographische Stromstärke. 3. Dem Elektrodenprozeß nachgelagerte chemische Reaktionen unter Rückbildung des Depolarisators. 664.
- Henkel, R. L., Perry jr., J. E. and Smith, R. K.* Breakup of deuterons on H, T, He³, and He⁴. 1590.
- s. *Beyster, J. R.* 605, 1381.
- s. *Brolley jr., J. E.* 1539, 1776.
- s. *Nobles, R. A.* 1776.,
- s. *Seagrave, John D.* 980.
- Henkels, H. W. and Maczuk, J.* Electrical properties of selenium: III. Microcrystalline selenium metal doped. 473.
- Henker, Heinz.* Kenngrößen des Transistors bei schwachen Wechselströmen. 1655.
- Henley, E. M. and Lee, T. D.* Model for multiple meson production. 235.
- Henne, W. s. Hans, W.* 2155.
- Hennessy, J. s. Crussard, J.* 2000.
- Hennicke, Irmgard.* Vergleichbarkeit bunter und unbunter Farbunterschiede. 2556.
- Hennig, Arno.* Wichtigkeit der physikalischen Forschung und ihrer Förderung. 1289.
- , *G. and Dzurus, M.* Donor impurities in graphite. 133.
- , *G. R. s. Montet, G. L.* 1388.
- s. *Smaller, B.* 123.
- , *Manfred.* Dicke und Dispersion der Brechzahl dünner Aluminiumoxydschichten. 1204.
- Henny, George, C. s. Newell, Robert R.* 1275.
- Henri, V. P. s. Bay, Z.* 583, 1791.
- Henrich, Reinhard.* Selbsttätige Regulierung zum Symmetrieren eines unsymmetrischen Drehstromnetzes. 1873.
- Henrici, G. s. Schulz, G. V.* 1834.
- , *Peter.* Asymptotische Entwicklung des Fehlerintegrals. 1091.
- Henry, I. George s. Peterson, Vincent.* 397.
- , *Joseph.* 2255.
- , *L. s. Barchewitz, P.* 861.
- , *Warren E.* Intradomain magnetic saturation for iron. 464.
- Ferrimagnetic interaction and remanence in cobalt carbonate. 1642.
- Magneto-electric effects in germanium in strong magnetic fields. 2122.
- , *W. G. and Rogers, J. L.* Magnetic susceptibilities of copper, silver and

- gold and errors in the Gouy method. 1848.
- Henry, W. G. and Rogers J. L. Magnetic susceptibilities of some diamagnetic alloys: primary solid solutions of zinc, gallium, germanium and arsenic in copper. 2109.
- Henshaw, D. G. s. Hurst, D. G. 978, 1628.
- Hentz, Robert R. s. Dewar, Melvin A. 1936.
- Hentze, G. Elektronenschleudern mit einer Betriebsfrequenz von 2,5 und 8 kHz. 1751.
- Hennis, B. s. Burstein, E. 2123.
- Hepburn, F. and Pierce, E. T. Atmospherics with very low-frequency components. 2245.
- Hepp, G. Batteriengespeistes Strahlungswarngerät. 1973.
- Heppner, J. P. Time sequences and spatial relations in auroral activity during magnetic bays at College, Alaska. 520.
- Herasymenko, P. Thermodynamic properties of alpha Ag-Cd and alpha Au-Cd alloys. 335.
- Herb, R. G. s. Weinman, J. A. 1125.
- Herbeck, M. Wärmeaustausch zwischen einer geheizten Wand und einer Konvektionsströmung. 2312.
- , R. s. Bartholomé, E. 1836.
- Herber, R. H. s. Backofen, E. W. 579.
- Herbst, W. und Philipp, K. Wanderweg eines atomtechnischen Aerosols. 1989.
- s. Noddack, W. 658.
- Herchenbach, W. Luftwiderstand von rotierenden Kreisscheiben. 547.
- und Düker, H. Elektrostatische Hochspannungsmaschine am Elektronenmikroskop. 2536.
- und Sigel, Hermann. Selbsterregung von Bandgeneratoren. 2502.
- Hereford, Frank L. s. Pettus, William G. 1599.
- Hering, H. s. Coriou, H. 2486.
- Herington, E. F. G. s. Barber, C. R. 1957.
- Herivel, J. W. Derivation of the equations of motion of an ideal fluid by Hamilton's principle. 734.
- Herlet, Adolf und Patalong, Hubert. Sperrfähigkeit von legierten Si-Flächengleichrichtern. 1039.
- Herlin, Melvin A. s. Chase, C. E. 449, 635.
- s. Jennings, L. D. 465.
- s. Kolm, Henry H. 449.
- Herman, Frank. Calculation of the energy band structures of the diamond and germanium crystals by the method of orthogonalized plane waves. 469.
- Speculations on the energy band structure of zinc-blende-type crystals. 1471.
- , Callaway, Joseph and Acton, Forman S. Comparison of various approximate exchange potentials. 540.
- , R., Moore, G. E., Silverman, S. and Wallis, R. F. Vibration-rotation line intensities in HCl and DCl. 1814.
- and Wallis, Richard F. Optical bleaching of F centers in X-rayed alkali halide crystals. 1825.
- Wallis, M. C. and Wallis, R. F. Frequencies and relative intensities of R_1 and R_2 bands in KCl. 1826.
- , R. C. s. Mador, I. L. 445.
- Hermann, Peter Konrad und Winterhoff, Horst. Magnetometerapparatur. 1209.
- Hermans, J. J. s. Kooy, J. 1630.
- s. Prins, W. 1636.
- , P. H. s. Calvet, E. 455.
- Hermansen, Alfred. Construction of an instrument intended to give a quick standardization of invar levelling rods. 2195.
- Herndon, John, A. Nielsen, A. H. and Fletcher, W. H. Infrared spectrum of $SiCl_2$. 623.
- Herning, Fritz s. Gehre, Hans. 546.
- Hernqvist, K. G. and Johnson, E. O. Retrograde motion in gas discharge plasmas. 1442.
- Heron, S., McWhirter, R. W. P. and Rhoderick, E. H. Measurements of lifetimes of excited states of helium atoms. 1614.
- Heroux, L. s. Dieke, G. H. 1809.
- Herpin, A. Forces interioniques dans les métaux. 257.
- et Jacrot, B. Diffusion inélastique des neutrons par un monocristal. 775.
- Herr, W., Hintenberger, H. and Voshage, H. Half-life of rhenium. 1765.
- s. Cameron, A. E. 1349.
- s. Eberhardt, P. 569.
- s. Hintenberger, H. 1765.
- und Merz, Erich. Altersbestimmung von Rhenium-haltigen Mineralien mittels Neutronenaktivisierung. 556.
- Herre, F. s. Brütling, G. 104.
- s. Richter, H. 262.

- Herreros, J. Barcala.* Consideraciones sobre la eleccion de vidrios en los objetivos apocromaticos. 491.
- Herring, D. F.* Automatic pressure control system. 368.
- , *Douglas, R. A., Silverstein, E. A. and Chiba, Ren.* Energy resolution obtainable with a 2 Mev H_2^+ beam. 2388.
- *s. Chiba, Ren.* 1353.
- *s. Jones, K. W.* 958.
- Herrmann, G.* Forced motions of Timoshenko beams. 198.
- , *H.* Prüfung von Glas-Metall-Verbindungen mit polarisiertem Licht. 1934.
- , *J. s. Bonanomi, J.* 2451.
- Hers, J.* Conversion of mean solar time to mean sidereal time. 1081.
- Hersch, Joseph.* Forme générale du théorème de Phragmén Lindelöf. 2260.
- Hersch, M. B. s. Bargellini, P. M.* 2139.
- Hersh, Charles K. s. Brown, Callaway.* 1112.
- , *Herbert N.* Color centers in KI at liquid helium temperatures. 630.
- Herson, J. L. s. Gifford, S. R.* 222.
- Hertz, C. H.* Point corona against a plane covered by an insulating film. 297.
- *s. Andersson, Nils Elvir.* 33.
- , *H. G. s. Franck, J. P.* 930.
- Hertzberg, A. s. Smith, W.* 916.
- Herz, A. J. and Davis, G.* Characteristics of tracks in nuclear research emulsions. 1323.
- , *Hodgson, P. E. and Tennent, R. M.* Production of τ -mesons in ice. 2001.
- , *Jean-Claude.* Systèmes de polynomes différentiels. 1920.
- , *R. H.* Spectral quantum- and energy-efficiency of calcium tungstate X-ray intensifying screens. 1890.
- Herzberg, G.* Lamb shift of the 1^2S ground state of deuterium. 1183.
- , *Quadrupole rotationvibration spectrum of the hydrogen molecule.* 1618.
- , *Lamb shift of the $1S$ level of deuterium.* 1805.
- , *and Hugo, T. J.* Forbidden transitions in diatomic molecules. IV. $a^3\Sigma^+ \leftarrow X^1\Sigma^+$ and $e^3\Sigma^- \leftarrow X^1\Sigma^+$ absorption bands of carbon monoxide. 2411.
- , *and Ramsay, D. A.* 7500 to 4500 Å absorption system of the free HC^O radical. 625.
- *s. Brix, P.* 255.
- Herzberg, G. s. Chandrasekhar, S.* 1395.
- *s. Heaps, H. S.* 1700.
- Herzenberg, A.* α -particle model of nuclei. I. u. II. 1138.
- Herzfeld, K. F. s. Schwartz, R. N.* 927, 1507.
- Herzog, B. s. Bloom, M.* 2457.
- , *W.* Tagung Funkortung im Haus der Technik in Essen am 13. März 1954. 2256.
- *s. Cameron, A. E.* 1349.
- *Oszillatoren mit Transistoren.* 477.
- *Schaltung von Transistoren.* 477.
- Hesketh, R. V. and Schneider, E. E.* Restoration of F and V_1 centers following low-temperature bleaching. 2423.
- Heß, B.* Strahlenschutzkontrolle mit dem Leuchtschirm. 1275.
- Hess, Erwin.* Aufstellung der Waagen für die Prüfung von Kontrollnormalgewichten (Direktionswaagen). 2280.
- , *F. G. and Opechowski, W.* Theory of radiative beta decay and electron capture. 596.
- , *K. und Grotjahn, H.* Einwirkung von Kohlenoxydsulfid auf Alkalizellulosen. 802.
- *und Mahl, Hans.* Elektronenoptischer Nachweis großer Perioden bei Kunststoff- und Cellulosefasern. 267.
- , *V. F.* Role of eddy diffusion in the distribution of ions in the atmosphere near the ground. 1485.
- , *W. N. and Moyer, B. J.* Production of deuterons in high-energy nuclear bombardment of nuclei. 573.
- — Production of deuterons in high-energy nucleon bombardment of nuclei and its bearing on nuclear charge distribution. 2366.
- Hestenes, Magnus R.* Iterative computational methods. 184.
- Hettel, Henry J. s. Fassel, Velmer A.* 1349.
- Hettner, G.* Czerny 60 Jahre. 1290.
- Heumann, Th. and Rösener, W.* Elektrochemisches Verhalten von Fe-Cr-Legierungen in KNO_3 und verd. HNO_3 . 139.
- , *und Lohmann, Paul.* Diffusion in der β -Phase des Systems Silber-Zink. 801.
- , *und Rösener, Wolfgang.* Passivität beim Chrom. 660.
- Heusinkveld, Myron, Jakobson, Mark, Ruby, Lawrence, Smith, Bob H. and Wright, Byron T.* Three-dee three-phase roton cyclotron. 1752.

- Heuss, Theodor. Bewertung der modernen Technik. 1500.
- Heuven, E. W. van. Noise of fluorescent lighting installations. 2532.
- Hevesy, Georg von zum 70. Geburtstag. 357.
- Hewel, Horst. Fernseh-Aufnahmetechnik. 1453.
- Hewish, A. Diffraction of radio waves in passing through a phase-changing ionosphere. 1913.
- Hewlett, F. M. s. Meison, G. H. 1662.
- Heyd, J. W. s. Baker, W. H. 224.
- Heydenburg, N. P. and Temmer, G. M. Coulomb excitation of rare-earth nuclei with alpha particles. 1565.
- — Energy levels in Ti, Fe, Ge and Mo by Coulomb excitation. 1788.
- s. Temmer, G. M. 1151, 1788, 2025, 2026, 2029.
- Heyman, Jacques. Limit design of space frames. 1312.
- Heymann, E. s. Boardman, N. K. 1012.
- s. Harrap, B. S. 1230.
- , F. F. and Jennings, R. E. Multiple scattering of 4.5 MeV electrons. 775.
- s. Henderson, C. 1986.
- Heynacher, E. and Slevogt, H. Auswertung einer rotationssymmetrischen Wellenfläche. 1684.
- Heyrovsky, I. zum 65. Geburtstag. 1290.
- Oszillographische Untersuchung der irreversiblen Abscheidung von Zinkionen an Quecksilberkapillarelektroden. 658.
- Heywang, W. Stabilität senkrechter Schmelzzonen. 1430.
- und Zerbst, M. Bestimmung von Volumen- und Oberflächenrekombinationen der Ladungsträger in Halbleitern. 1430.
- und Schöfer, Rudolf. Einfluß des Gefüges auf das Hystereseverhalten von BaTiO₃-Keramik. 1444.
- Heywood, H. s. Jarrett, B. A. 2093.
- Hibbard, L. U. Birmingham proton synchrotron. 936.
- Hibberd, F. H. Ionospheric self-interaction of radio waves. 678.
- Hibdon, Carl T. and Langsdorf, jr. Alexander Total neutron cross sections in the Kev region: Be, B, C, F, Ti, Ni and Bi. 958.
- Hibi, Tadatoshi and Yada, Keiji. High-resolution replicas and their application. 806.
- Hibi and Ogawa, Takuji. Crystal habit of magnesium oxide smokes. 2069.
- Hiby, J. W. und Pahl, M. Fremdgasbehinderte und reine Molekularströmung durch eine vielfach geknickte Röhre als Modell für ein Porensystem. 1102.
- Hickam, W. M. and Fox, R. E. Negative ion formation using monoenergetic electrons. 996.
- Hickey jr., John S. Heat transfer at high-power densities. 155.
- Hickling, A. and Hill, S. Oxygen over-voltage. II. Influence of hydrogen ion concentration, nature of electrolyte, temperature and addition of fluoride. III. Standard potentials of the hydroxyl radical and atomic oxygen. 2150.
- s. El Wakkad, S. E. S. 2145.
- Hickman, James B. s. Neff, Joseph A. 2322.
- Hicks, B. L., Turner, T. E. and Widule, W. W. Applications of large digital computers to calculations of microwave spectroscopy. 434.
- s. Turner, T. E. 434.
- , D. s. Beghian, L. E. 237, 243, 1781.
- , D. A. s. Pyle, R. V. 1777.
- Ise, jr. John and Pyle, Robert V. Multiplicity of neutrons from the spontaneous fission of californium-252. 577.
- — — Probabilities of prompt-neutron emission from spontaneous fission. 2020.
- s. Ise, John jr. 1356, 2346.
- Hida, Kinzō. Subsonic flow of a compressible fluid past a prolate spheroid. 2292.
- Study on the detached shock wave in front of a circular cylinder and a sphere. 2295.
- Hide, R. Waves in a heavy, viscous, incompressible, electrically conducting fluid of variable density, in the presence of a magnetic field. 820.
- Hieke, Max. Ebenes Distorsionsproblem. 1305.
- Hiemisch, Willi. Absolute Radium-Dosimetrie als praktische Möglichkeit. 342.
- Hiesinger, Leopold. Einfacher Strömungsversuch zur Demonstration der Wirkungsweise einer Diffusionspumpe. 1500.
- Higashi, S., Oda, M., Oshio, T., Shibata, H. and Watanabe, K. Absorption of cosmic rays underground. 1177.

- Higashi, S., Kitamura, T., Kubozoe, T., Oda, M., Ozaki, S. and Watase, Y. Penetrating shower originating in light element and heavy element. 1178.
- Higasi, K. s. Omura, I. 1187.
- Higatsberger, Michael J. Ausheizbare Hochvakuumdichtungen. 2273.
- Higatsberger, Michael J., Demorest, H. L. and Nier, Alfred O. Secondary emission from nichrome V, CuBe and AgMg alloy targets due to positive ion bombardment. 484.
- Higgins, C. S. and Shain, C. A. Observations of cosmic noise at 9.15 Mc/s. 880.
- , George C. and Wolfe, Robert N. Relation of definition to sharpness and resolving power in a photographic system. 1676.
- , G. H. s. Crane, W. W. T. 56.
- s. Ghiorso, A. 1322.
- , L. s. Bandtel, K. C. 1342.
- Higgs, R. s. Litovitz, T. A. 2302.
- Highton, A. P. s. Hopkins, L. F. 314.
- Higman, Bryan. Electron configuration in 8-coordinated and other complexes. 101.
- Hijikata, Katsunori s. Kotani, Masao. 2271.
- Hilbourne, R. A. and Jones, D. D. Transistor power amplifiers. 479.
- Hildebrand, J. H. s. Alder, B. J. 1111.
- s. Rotariu, G. J. 1099.
- Critical point. 2320.
- , R. H. s. Nagle, D. E. 1515.
- Hill, D. A. s. Coor, T. 1381.
- , David L., Freeman, Burton E. and Ford, Kenneth W. Nuclear charge distribution in Pb^{208} . 401.
- , G. W. and Pearcey, T. Starting routines for the C.S.I.R.O. Mark I computer. 2263.
- s. Pearcey, T. 184, 896.
- , H. A. and Blair, J. M. Energy levels in F^{19} . 1790.
- , R. D. Auger electron intensities. 96.
- Model for asymmetric fission. 1356.
- , Salant, E. O. and Widgoff, M. Tau meson produced by 3.0-Bev protons. 45.
- Chi meson produced by 3-Bev protons. 1335.
- Heavy mesons produced by 2.2- and 3.0-Bev protons. 1755.
- s. Gardner, F. T. 756.
- s. Swan, J. B. 1163.
- Hill s. Wheatley, J. C. 1767.
- , Robert M. and Gordy, Walter. Zeeman effect and line breadth studies of the microwave lines of oxygen. 436.
- , S. s. Hickling, A. 2150.
- , Terell L. Virial expansion of the osmotic pressure in the Donnan membrane equilibrium. 2323.
- Corresponding states in multilayer step adsorption. 2448.
- Hillebrand, Dietrich M. Chemische und elektrische Explosionen. 180.
- Hiller, Christa. Dupligravimetrie. 1461.
- jr., L. A. s. Wall, F. T. 1200.
- Hillert, M., Averbach, B. L. and Cohen, M. Thermodynamic properties of solid aluminium-silver alloys. 2544.
- Hillier, R. s. Davies, J. H. 763.
- Hillman, P. and Stafford, G. H. Polarization effects in neutron-proton scattering at 98 MeV. 2037.
- Hilsum, C. Absorption edge of amorphous selenium and its change with temperature. 2470.
- Infrared transmission of barium titanate. 2530.
- , Oliver, D. J. and Rickayzen, G. Photoelectromagnetic effect in indium antimonide. 1432.
- Hilton, H. H. s. Mills jr., W. R. 1574.
- Hiltscher, Rudolf. Spannungsoptischer Apparat für das Forschungs- und Industrielaboratorium. 2281.
- Himpan, Joseph. Berechnung der Schallgeschwindigkeit in Gasen und Flüssigkeiten mittels einer neuen thermischen Zustandsgleichung. 740.
- Hinds, S. and Middleton, R. Angular distributions of some inelastically scattered deuteron groups from ^{27}Al . 2036.
- s. Burrows, H. B. 2036.
- Hine, G. J., Burrows, B. A., Apt, L., Pollycove, M., Ross, J. F. and Sarkes, L. A. Scintillation counting for multiple-tracer studies. 344.
- and McCall, Richard C. Gamma-ray backscattering. 246.
- s. Friedman, Milton. 1906.
- , M. G. N. s. Adams, J. B. 1986.
- Hines, C. O. Hydromagnetic resonance in ionospheric waves. 1912.
- Diurnal variations in the number of shower meteors detected by the forward-scattering of radio waves. I. Theory. 2561.

- Hines, C. O., Forsyth, P. A. and Vogan, E. L.* Diurnal variations in the rate of meteor detection by forward-scattering. 706.
- — — and *Pugh, R. E.* Dependence of meteoric forward-scattering on antenna patterns and orientations. 2561.
- *s. Blair, G. W. Scott.* 1922.
- *s. Forsyth, P. A.* 2561.
- , *K. C.* Energy distribution of protons due to collision energy loss. 975.
- , *M. E., Chrune, M. and McCarthy, J. A.* Digital memory in barrier-grid storage tubes. 2518.
- *s. Culler, C. C.* 851.
- , *R. L.* Reduction of optical reflectivity of glass by positive ion bombardment. 1803.
- Hinman, G. W. s. Leamer, R. D.* 80.
- Hinotani, K., Suga, K. and Tanaka, Y.* Shower curves with the multiplate cloud chamber. 1389.
- Hinrichs, H. s. Dobrinski, P.* 862.
- , *O. s. Steffen, K. G.* 1793.
- Hinshelwood, Sir Cyril s. Frey, H. M.* 1124.
- Hintenberger, H.* Josef Mattauch 60 Jahre. 1489.
- , and *Lang, C.* Thermische Ionenquelle mit extrem niedrigem Substanzverbrauch. 1750.
- , *Herr, W. and Voshage, H.* Radiogenic osmium from rhenium-containing molybdenite. 1765.
- , *Wende, H. und König, L. A.* Massenspektrographen mit Doppelfokussierung zweiter Ordnung. 555.
- *s. Herr, W.* 1765.
- Hintermann, K.* Messungen an Elektronenpaaren, erzeugt durch γ -Strahlung in 4550 m Höhe (Monte Rosa). 1177.
- Hinton, Sir Christopher.* Nuclear reactors and power production. I. II. III. 1128.
- Hintz, Norton M.* Elastic scattering of protons at 9.9 Mev. 1592.
- *s. Johnston, Lawrence H.* 1517.
- Hirai, Kazuji s. Yamaguchi, Jiro.* 2136.
- Hirano, Ken-ichi.* Mechanism of aging in aluminium-silver alloys. I. 2546.
- and *Takagi, Yutaka.* Solid solubility of silver in aluminium. 1690.
- Hirao, Kunio, Uesugi, Yahei and Tao, Kazuhiko.* Propagation characteristics of VHF over a distance of 125 km. 2509.
- *s. Fukushima, Madoka.* 2509.
- Hird, B. Whitehead, C. Butler, J. and Collie, C. H.* γ Rays from the C^{13} (p, γ) N^{14} and $Na^{23}(p, \gamma)Mg^{24}$ reactions. 62.
- Hiroike, Kazuo.* Second virial coefficient at very low temperatures. 2315.
- Hirone, Tokutaro, Maeda, Seiji and Tsuya, Noboru.* Automatically recording magnetic balance. 118.
- *s. Mizuno, Joji.* 110.
- Hirono, Motokazu.* Influence of the Hall current to the electrical conductivity of the ionosphere. I. II. 2571.
- Theory of diurnal magnetic variations in equatorial regions and conductivity of the ionosphere E-region. I. II. 2571.
- and *Maeda, Hiroshi.* Geomagnetic distortion of the F_2 region on the magnetic equator. 2247.
- Hirsch, A. s. Ghiorso, A.* 1322.
- , *C. J., Bailey, W. F. and Leughlin, B. D.* Principles of NTSC compatible color television. 489.
- , *P. B., Kelly, A. and Menter, J. W.* Structure of cold worked gold. I. Study by electron diffraction. 1418.
- *s. Ball, C. J.* 799.
- Hirschberg, D.* Dosage de radioéléments par la distribution des intervalles entre désintégrations. I. Efficacité des estimations. II. Application an $RdTh$. 1123, 1124.
- *s. Deutsch, Sarah.* 1516.
- , *Joseph G.* Application of the photomultiplier to the interference spectroscope. 1883.
- Emission spectroscopy at liquid helium temperature. 1884.
- Hirschfelder, J. O. s. Byron, R.* 381.
- *s. Dahler, J.* 448.
- Hirschler, F. G. s. Elton, G. A. H.* 2097.
- Hirt, R. C., Halverson, F. and Schmitt, R. G.* s-triazine. II. Near ultraviolet absorption spectrum. 2062.
- Hirvonen, R. A.* Nuthsell tables of mathematical functions for interpolation with calculating machines. 896.
- Tables for the computation of long geodetic lines. 1084.
- Hisatake, Kazuo s. Hattori, Manabu.* 772.
- Hitchcock, R. J. s. Humby, A. M.* 847.
- , *Richard C.* Testing with white sound. 2514.
- Hittmair, O.* Matrixformulierung des (d,p)-Wirkungsquerschnitts. 419.

- Hittmair, O.* Winkelkorrelationen. 964.
 — Koppelungsarten in Stripping-Winkelkorrelationen. 1168.
 — Schalenmodellkoppelung und Polarisation von Stripping-Protonen. 1592.
 — Schalenmodellkoppelung und Winkelverteilung der Reaktion $C^{13}(p\ \gamma)N^{14*}$. 1781.
- Ho, Kuo-Chu.* Double interpolation and differentiation formulas. 536.
 — Focusing high-current electron beams by the aperture effect. 1686.
- Hoang, T. F., Jauneau, L., Jouvin, J. et Mabboux, C.* Estimation statistique de l'exposant du spectre d'énergie du rayonnement cosmique primaire. 1388.
 —, *Jouvin, J., Kayas, G., Leprince-Ringuet, L., Morellet, D.* Orkin-Lecourtois, A. et Trembley, J. Etude de mésons lourds à l'arrêt dans les émulsions photographiques. I. Résultats expérimentaux sur les masses des mésons primaires. 1136.
 — s. *Cester, R.* 1976, 2001.
 — s. *Yekutieli, G.* 1521.
- Hoang-Tchang-Fong* s. *Orkin-Lecourtois, A.* 1121.
- Hoarau, J. s. Bergmann, E. D.* 278.
 — s. *Pacault, A.* 274.
- Hoare, F. E., Matthews, J. C. and Yates, B.* Carbon resistor thermometers. 211.
- Hobson, A.* Current summations with current transformers. 812.
 and *Kay, R. H.* Paramagnetic oxygen meter. 2275.
 —, *J. P., Hubbs, J. C., Nierenberg, W. A. and Silsbee, H. B.* Spin, magnetic moment, and hyperfine structure of Rb^{81} . 1348.
 — — — Nuclear spin of Rb^{81} . Method of measurement. 1803.
 — s. *Hubbs, I. C.* 1348.
- Hocart, R. s. Oberlin-Mathieu-Sicaud, A.* 1889.
- Hoch, Michael.* Reaction between BaO and C. 1316.
 and *Johnston, Herrick L.* Germanium-oxygen system. 1509.
- Hochanadel, C.* Low-temperature liquid-in-glass thermometer. 745.
- Hochberg, S., Massey, H. S. W., Robertson H. and Underhill, L. H.* Scattering of nucleons by alpha particles-determination of the spin-orbit interaction. 83.
- Hochhäuser, Paul.* Erzeugung, Messung und Aufrechterhaltung hoher Vakua in der Elektrotechnik. 1096.
- Hochheimer, B. F. and Moore, G. E.* Short-path absorption cell. 1253.
- Hochman, R. s. Kuczynski, G. C.* 510.
- Hochrainer, A.* Schaltgeräte. 1291.
 — s. *Duschek, Adalbert.* 534.
- Hochschild, E. F. s. Ehret, R. J.* 544.
- Hochstrasser, Urs.* Flatterrechnung mit Hilfe von programmgesteuerten Rechenmaschinen. 2262.
- Hoch, Lothar* 65 Jahre. 894.
- Hockney, R. W. and Hough, P. V. C.* Coulomb effects in the (d, p) reaction. 766.
- Hodge, A. J., Hope, A. B., McLean, D. J. and Mercer, F. V.* Fine structure of nitella chloroplasts. 2223.
 —, *Bartow and Morris, Lloyd W.* Cloud-chamber study of the second maximum. 2399.
- Hodgkinson, R. J.* Stoichiometry of intermetallic semiconductors. 2469.
- Hodgson, J. N.* Infra-red properties of some metallic films. 270.
 — Polarization due to oblique reflexion at an aluminized or silvered mirror. 1885.
 —, *P. E.* Gap measurement as a method of analysing cosmic ray stars in photographic emulsions. 1977.
 — Nuclear disintegrations caused by 50-125 mev protons. I. 2013.
 — s. *Herz, A. J.* 2001.
 —, *W. G. s. Ingram, D. J. E.* 2414.
- Hodkinson, J.* Control valve for corrosive liquids. 1724.
- Hodson, A. L. Loria, A. and Ryder, N. V.* Control of a Wilson cloud chamber by means of an internal counter. 1976.
- , *Ballam, J., Arnold, W. H., Harris, D. R., Rau, R. Ronald, Reynolds, George T. and Treiman, S. B.* Cloud-chamber evidence for a charged counterpart of the Θ^0 particle. 395.
 — s. *Arnold, W. H.* 403, 938.
 — s. *Ballam, J.* 938, 1332.
 — s. *Harris, D. R.* 43.
 — s. *Treiman, S. B.* 561.
- Höcker, K.-H.* Bindung des Leuchtnucleons im Schalenmodell der Atomkerne. 2006.
 — und *Bez, W.* Theorie des Anodenfalls. II. Möglichkeiten und Grenzen der Feldionisierung. 672.

- Höcker, K.-H., Kuhn, H. und Ritzi, M. Absorptionsanalyse der sternausslösenden Komponenten der Ultrastrahlung. IV. Frage der Entstehung scharfer Maxima. 92.
— s. Bez, W. 672.
- Höhler, G. Berechnung des Grundzustandes und der Masse des Polarons. 443.
- Hönl, Helmut. Ostwaldsche Systematik der Pigmentfarben in ihrem Verhältnis zur Young-Helmholtzschen Dreikomponenten-Theorie. 1274.
- Hoerner, Sebastian v. Turbulenztheorie der Spiralnebel. 2236.
- Hofe, Chr. v. Gesichtsfeld und Bildhelligkeit bei Fernrohren. 311.
- Hofer, L. J. E. s. Manes, Milton. 2325.
- Hoff, B. M. E. van der and Benson, G. C. Quantum-mechanical calculation of the surface energy of crystalline lithium fluoride. 444.
—, Richard W. ft values and L/K ratios for orbital electron capture. 1578.
— and Thompson, S. G. Orbital electron capture in the heaviest elements. 78.
- Hoffman, D. C. s. Broune, C. I. 65.
— s. Prestwood, R. J. 966.
—, G. R. Coplanar mesh storage. 1293.
—, H. E. s. Howard, R. A. 43.
—, Joseph G., Metropolis, N. and Gardiner, V. Monte Carlo methods in the study of cell growth. 171.
—, P. s. Tarbell, D. S. 2410.
—, W. C. Theoretical model for high-frequency backscatter from the sea surface via the ionosphere. 2176.
- Hoffmann, F. de, Metropolis, N, Alei, E. F. and Bethe, H. A. Pion-hydrogen phase shift analysis between 120 and 217 Mev. 90.
— s. Bethe, H. A. 89.
- , Otto. Durchlässigkeit von 1000 bis 3000 Å dicken Aluminiumoxydfolien für Elektronen unterhalb 16 keV Energie. 639.
- Hoffmeister, C. Elektrophysikalische Bestimmung der Geschwindigkeiten von Meteoren. 1697.
- *Hofmann, Alfred. Probleme um die Wettervorhersage. 1089.
- , Ernst-Günther und Jagodzinski, Heinz. Hochauflösende Röntgenfeinstruktur-Anlage mit verbessertem, fokussierendem Monochromator und Feinfokusröhre. 2065.
- Hofmann, Wilhelm und Meier, Günther. Verwendung von Bleifolien für Meßdosen zur Bestimmung von Explosionsdrucken. 20.
- Hofstadter, R., McAllister, R., Wiener, E. † and Hansen, W. W. Electron scattering in hydrogen and helium. 88.
— s. Fregeau, J. H. 1171.
— and McAllister, Robert, W. Electron scattering from the proton. 607.
— s. Fregeau, Jerome H. 1598.
— s. Hahn, Beat. 607, 2394.
— s. McIntyre, J. A. 88, 983.
- Hogarth, C. A. and Bardsley, W. Effect of illumination on the excess noise of silicon filaments. 1430.
- Hogben, Anne S. s. Levi, Hilde. 1748.
- Hogg, Benjamin G. Energy available for beta decay of Nd¹⁵⁰. 1577.
— and Duckworth, Henry E. Atomic mass study of nuclear shell structure in the region $82 < n < 126$. 567.
— — Evidence for a region of extra nuclear stability between the 82- and 126-neutron shells. 567.
— s. Duckworth, Henry E. 764.
— s. Preston, R. L. 1088.
—, J. F. s. Marsh, J. B. 2230.
- Hohnstedt, Leo F. and Steindler, Martin J. Electrical control for automatic Toepler pumps. 906.
- Hok, Ong Ping. Rotational levels in the beta decay of protactinium isotopes. 1561.
—, Kramer, P., Meijer, G., Fennema, J. W. R. and Zijp, W. L. Beta-decay of ²³⁰Pa. 2383.
— s. Stoker, P. H. 556.
- Holaday, D. A. s. Tsvoglou, E. C. 2576.
- Holden, A. N. Spiral-scanning X-ray reflection goniometer for the rapid determination of preferred orientations. 866.
—, Matthias, B. T., Merz, W. J. and Remeika, J. P. Guanidine aluminum sulfate hexahydrate. Ferroelectric material. 1869.
—, Merz, W. J., Remeika, J. P. and Matthias, B. T. Properties of guanidine aluminum sulfate hexahydrate and some of its isomorphs. 2496.
— s. Fletcher, R. C. 130.
— s. Merz, W. J. 1869.
- Holdsworth, J. F., Price, F. Henley and Tomlinson, R. C. Interlaboratory checks on the counting of coal dust

- particles on thermal precipitator slides. 2190.
- Holdsworth, J. F.*, s. *Hamilton, R. J.* 2191.
- Holsen, E.* and *Midtdal, J.* Metastable energy state of the negative helium ion. 250.
- Holl, W.* s. *Mühleisen, R.* 525.
- Holladay, W. G.* Nucleon anomalous moments via pion-pion attraction. 2271.
- Nucleon structure and the n-p mass difference. 2356.
- and *Sachs, R. G.* Evidence for pion-pion interaction. 7.
- Neutron-proton mass difference. 1759.
- s. *Capps, R. H.* 1762.
- Holland, D. H.* Kinetic energy in nonlinear meson theory. 1519.
- , *F. H.*, *Mickelson, R. S.* and *Powers, S. A.* Objective method for determination of equivalent neutral densities of color film images. III. Densitometer calibrations. 861.
- , *L.* and *Siddall, G.* Reactive sputtering and associated plant design. 1842.
- and *Yarwood, J.* Use of carbon crucibles in measurements on the rate of evaporation of liquid metals in vacuum. 1741.
- , *R. E.*, *Inglis, D. R.* and *Mooring, F. P.* Search for excited states of Be^8 . 590.
- — *Malm, R. E.* and *Mooring, F. P.* Scarcity of low-energy levels of Be^8 appearing in two boron reactions. 1787.
- Hollander, J. M.* and *Kalkstein, M. I.* Radiations Ba^{128} - Cs^{128} . 580.
- , *Smith, W. G.* and *Mihelich, J. W.* Energy levels of Pu^{239} populated by the beta decay of Np^{239} . 1159.
- s. *Kalkstein, M. I.* 63.
- s. *Smith, W. G.* 580, 1357.
- , *L.*, *Martin, G. A.* and *Skarstrom, C. W.* Application of infrared nondispersion analyzer. 1679.
- Holleck, L.* and *Kastening, B.* Polarographisches Verhalten von Benzylidenanilin. 1231.
- s. *Kastening, B.* 1114.
- und *Schmidt, Hermann.* Reaktionswege und Zwischenprodukte bei der Reduktion der Dinitrobenzole an Quecksilberelektroden. 1042.
- Hollenman, Arnold Frederick.* 2254.
- Holliday, J. E.* and *Sternglass, E. J.* Method for determining the range of low-energy electrons in solids. 1182.
- Hollmann, G.* Lösung der barotropen Vorticity-Gleichung mit der Periode eines Sterntages. 2251.
- Beziehung zwischen Wind- und Druckfeld in Abhängigkeit von der geographischen Breite. 2580.
- Über- und untergradientische barokline Zonalströmung als Lösung der hydrodynamischen Gleichungen. 2581.
- Methode zur approximativen Lösung barokliner Prognoseprobleme. 2582.
- Behandlung barokliner Prognoseprobleme mit Hilfe nichtgeostrophischer Gleichungen. 2582.
- , *H. E.* Transistoren und Elektronenröhren. 2479.
- Transistortheorie und Transistorschaltungen. 477.
- Hollnagel, M.* s. *Landsberg, R.* 836.
- Holloway, A. F.* s. *Sinclair, W. K.* 2371.
- , *J. H. s. Daly jr., R. T.* 430.
- Holloway, D. L.* and *Cassidy, C. J. A.* Instrument for dielectric measurements in the frequency range 100 bis 300 Mc/s. 1659.
- s. *Murray, C. T.* 813.
- Holm, D. M.* s. *Terrell, J.* 1770.
- , and *Argo, H. V.* T-T elastic scattering from 1.6 to 2.0 Mev. 1167.
- , *Else* und *Holm, Ragnar.* Stoffwanderung in Abhebekontakten aus Silber und Platin. 1051.
- , *Lennart W.* Kinetics of the exchange processes in ion exchangers. 1115.
- , *Ragnar s. Holm, Else.* 1051.
- Holmes, D. K.* s. *Cleland, J. W.* 2132.
- , *J. E. R.*, *McVicar, D. D.*, *Shepherd, L. R.* and *Smith, R. D.* Electrical characteristics of fission chambers. 225.
- , *Rose, H.*, *Shepherd, L. R.*, *Smith, R. D.* and *Smith, A. M.* Operational features of zephyr. 1329.
- , *John R. s. Essig, Frederick C.* 461.
- s. *McClung, Fred.* 1613.
- , *P. J.* Scanning X-ray camera for the detection of crystal imperfections. 793.
- and *Fuchs, P. D.* Visual method of accurately positioning a specimen relative to an X-ray beam. 1821.

- Holmgren, H. D. and Butler, J. W.* O^{18} ($d, n \gamma$) F^{19} reaction. 1788.
- *Bullock, M. L. and Kunz, W. E.* Angular distributions of protons from $Be^9(He^3, p) B^{11}$. 1583.
- , *Hanscome, T. D. and Willett, D. K.* Q values for the $O^{17}(d, p) O^{18}$ and $O^{18}(d, p) O^{19}$ reactions. 950.
- *Kunz, W. E. and Bullock, L.* Angular distribution of protons from $Be^9(He^3, p) B^{11}$ reaction. 1373.
- s. *Butler, J. W.* 1562.
- s. *Kunz, W. E.* 1373.
- s. *Stratton, T. F.* 65.
- Holmwood, W. A. s. Pritchard, B. S.* 1882.
- Holoien, Erling.* Stability of the negative lithium ion. 1618.
- Holroyd, L. V. s. Srinivasan, D.* 501.
- Holstein, T.* Mobility of positive ions in gas mixtures. 837.
- Optical and infrared volume absorptivity of metals. 1849.
- Holt, M.* Initial behaviour of a spherical explosion. I. Theoretical analysis. II. Application to PETN charges in air and water. 926.
- , *N.* Total neutron cross section of Eu in the 0.001 to 0.01 eV region. 1362.
- Holtan jr., Hans.* Relation between the temperature coefficient of isothermal cells and the thermopotentials of the corresponding thermocells. 2485.
- Holtzberg, Frederic s. Triebwasser, Sol.* 1239.
- Holzhauser, Cl.* Sicherheit von Bauteilen für hohe Dampftemperaturen. 2549.
- Homma, Terutake s. Fujita, Hiroshi.* 2078.
- Honda, M.* Theory of subsonic flow through aerofoils in lattice. 2293.
- Hondl, Stanko.* Mit Wasser gefülltes Fernrohr nach Boscovich. 2520.
- Honerjäger, Richard s. Goubau, Georg.* 1706.
- Honig, A. and Combrisson, J.* Paramagnetic resonance in As-doped silicon. 2132.
- , *Mandel, M., Stitch, M. L. and Townes, C. H.* Microwave spectra of the alkali halides. 785.
- , *Jurgen M. and Hill, Edward L.* Determination of adsorption energy heterogeneity of solid surfaces. 2445.
- Honjo, Goro.* Fine structure due to refraction effect in electron diffraction pattern of powder sample. I. Fine structure given by magnesium and cadmium oxide smoke having a fibrous orientation. 2417.
- Honjo, Goro.* Electron diffraction studies on oxide films formed on metals and alloys. II. Selective oxidation of alloys. 2543.
- and *Mihama, Kazuhiro.* Fine structure due to refraction effect in electron diffraction pattern of powder sample. II. Multiple structures due to double refraction given by randomly oriented smoke particles of magnesium and cadmium oxide. 794.
- Honhold, V. R., McCaffrey, F. and Mrowca, B. A.* Rubberlike polymers by nuclear magnetism. 2434.
- Honour, A. J. s. Corbett, Brian D.* 1905.
- Hooge, F. N. s. Ketelaar, J. A. A.* 2329.
- Hook, H. O. s. Knoll, M.* 683.
- Hooker, Prudence M. s. Light, L. H.* 479.
- Hooper, C. W., Sedes, W. E. and Stokes, A. R.* Photographic preparation of masks of large molecules for the Lipson diffractometer. 1001.
- , *J. s. Davies, J. H.* 763.
- , *J. E. and King, D. T.* Multiple processes in the production of pairs of electrons by γ -radiation. 1989.
- s. *Bøggild, J. K.* 1757, 2352.
- Hooton, D. J.* Interatomic and lattice potentials in solid helium. 106.
- Anharmonicity in lattice thermodynamics. I. II. 797.
- s. *Born, M.* 218.
- , *John A. and Merz, Walter J.* Etch patterns and ferroelectric domains in $BaTiO_3$ single crystals. 1240.
- Hoover, jr. C. W.* Transient response of cavity resonator. 486.
- and *Smither, R. K.* Secondary electron resonance discharge mechanism. II. 1327.
- s. *Smither, R. K.* 1327.
- Hope, A. B. s. Hodge, A. J.* 2223.
- , *J. and Longdon, L. W.* Tensor operator methods and the tensor force. 2008.
- s. *Jahn, H. A.* 1295.
- Hopkins, B. E. s. Allen, N. P.* 913.
- , *E. G.* Self-heating triode for voltage stabilization. 2185.
- , *H. G. and Wang, A. J.* Load-carrying capacities for circular plates of perfectly-plastic material with arbitrary yield condition. 919.
- s. *Wang, A. J.* 919.

- Hopkins, H. H.* Frequency response of a defocused optical system. 321.
- Frequency response of optical systems. 2519.
- , *J. I. s. Fowler, T. K.* 1541.
- , *L. F. and Highton, A. P.* Gloss meter incorporating a method for accurately measuring the polarization of light. 314.
- , *N. J.* Comparison of isotopes for use in multi-curie therapy sources. 2557.
- , *R. E., McCarthy, C. A. and Walters, R.* Automatic correction of third-order aberrations. 1067.
- Request for information on aspheric elements. 1067.
- , *R. L.* Elastic strain energy stored in mechanically disturbed surfaces. 2128.
- Hopkinson, R. G. and Petherbridge, P.* Two supplementary studies on glare. 323.
- *Longmore, L. and Petherbridge, P.* Empirical formula for the computation of the indirect component of daylight factor. 322.
- *s. Collins, J. B.* 322.
- Hopmann, Josef.* Photometrisch-kolorimetrische Beobachtungen von visuellen Doppelsternen. II. Beobachtungen mit dem Rotkeil-Kolorimeter. III. Beobachtungen mit dem Blau-Rot-Keil-Kolorimeter. Diskussion des Gesamtmaterials. Farbenhelligkeitsverteilung. 1483.
- Hoppe, W.* Bestimmung der Orientierung organischer Molekeln mit diffuser Röntgenstreuung. 2064.
- Mikroabsorptionsspektralanalyse im sichtbaren Spektralgebiet und im UV. 2191.
- Hopper, V. D. and Laby, Jean E.* Electron background in imported G5 emulsions. 2340.
- Hoppes, D. D. s. Hayward, R. W.* 590, 1152, 1369, 2029.
- Hopton, R. L. s. Day, R. P.* 158.
- Hopwood, F. L.* Production of liquid vortex tones, and some associated phenomena. 2299.
- , *W., Peacock, N. J. and Wilkes, A.* Ionization coefficients and electrical breakdown in hydrogen. 2488.
- , *Wilkes, A.* 2489.
- Horeau, Alain, Jacques, Jean, Mathieu, Jean-Paul et Petit, André.* Nomenclature des antipodes optiques dans les composés stéroïdes. 550.
- Hori, Shiochi.* Inverse power expansion of the $S_{\text{vac}} [\eta, \eta, J]$ and the Green-functions. 2268.
- Horie, Hisashi.* Line strengths for transitions $d_n \rightarrow d_{n-1} p$ and $d_n \rightarrow d_{n-1} f$, and probabilities of photoionization and recombination $d_n \rightarrow d_{n-1}$. 2405.
- Spin-spin and spin-other-orbit interactions. 2420.
- and *Arima, Akito.* Configuration mixing and quadrupole moments of odd nuclei. 1766.
- *s. Yamanouchi, Takahiko.* 2405.
- Horiuchi, Kazuo s. Namiki, Mikio.* 2510.
- Horlock, J. H.* Secondary flow in pipe bends. 1309.
- Horn, W. van s. Keck, P. H.* 823.
- Horn-d' Arturo.* Teleskopspiegel. 2559.
- Hornbostel, J. and Salant, E. O.* Heavy unstable particles from captured K-mesons. 1134.
- — Capture of negative K-mesons. 1335.
- — Negative K-mesons. 1755.
- — Interactions of negative K-mesons. 1996.
- Horner, F.* Table of a function used in radio-propagation theory. 1291.
- Table of a function used in radio-propagation theory. 1664.
- Polarization errors in an H-Adcock direction-finder. 2176.
- and *Clarke, C.* Waveforms of atmospheres and their use in the location of thunderstorms. 1915.
- Hornig, A. W., Jaynes, E. T. and Weaver, H. E.* Observation of paramagnetic resonances in single crystals of barium titanate. 1847.
- Hornung, E. W. and Giaque, W. F.* Vapor pressure of water over aqueous sulfuric acid at 25°. 1321.
- Hornjak, W. F. and Sherr, R.* Inelastic scattering of 19 Mev protons by O^{16} . B. Gamma radiation. 1365.
- — Inelastic scattering of 19-Mev protons by O^{16} . 2028.
- *s. Coor, T.* 1381.
- *s. Sherr, R.* 1365.
- Horowitz, J. et Messiah, A. M. L.* Réactions (dp) et (dn). 238.
- , *M. s. Silvini, A. A.* 1745.
- , *Nahmin s. Brabant, John M.* 1529.

- Horridge, G. A.* Polarized light study of glass fibre laminates. 264.
- Horton jr., A. W. and Vaughan, H. E.* Transmission of digital information over telephone circuits. 2501.
- , *G. K. and Phibbs, E.* Effect of nuclear charge on internally produced pairs. 8.
- *s. Bhatia, A. B.* 1193.
- , *John W.* Alpha-gamma angular correlation in $\text{Bi}^{212}(\text{ThC})$. 1572.
- Horváth, J. I.* Lösung der Schrödinger-Gleichung mittels des Variationsverfahrens. 717.
- Asymptotical method for the calculation of eigenfunctions. 2266.
- Horwitz, Norman H. and Lofstrom, James E.* Photographic recording method for scintillation scanning. 2194.
- Hosemann, R. Zu Kratky, O. und Porod, G.:* Theorie der Kleinwinkelstreuung. 1411.
- and *Bagchi, S. N.* Diffraction effects of crystals with deformation faults. 103.
- Quantenmechanik als Beugungsphänomen von Führungswellen. I. Eigenschaften eines spinfreien Teilchens, definiert durch vier Prinzipien. II. Prinzipien der klassischen Mechanik und Quantenmechanik als Entartungsfälle. III. Maxwell'sche Strahlungstheorie und Schrödingersche Wellenmechanik als Entartungsfälle. Kernphysik und experimentelle Prüfung der neuen Theorie. 897.
- — Begründung einer Algebra physikalisch beobachteter Funktionen mittels Faltungsoperationen. I. Präzisionen, Funktionenkomplex, Punktfunktionen, Fourier-Transformation eines Komplexes, Integro-Differentialoperator. 1920.
- — Korrespondenz des Kepler-Problems der klassischen Mechanik und der Schrödingerschen Eigenfunktionen des Wasserstoffatoms. 1930.
- — Existenzbeweis für eine eindeutige Röntgenstrukturanalyse durch Entfaltung. I. Entfaltung zentrosymmetrischer endlicher Massenverteilungen. 2065.
- und *Schoknecht, G.* vorgelegt von *Kast, W.* Lichtoptische Herstellung und Diskussion der Faltungsquadrate parakristalliner Gitter. 2259.
- *s. Kratky, O.* 1411.
- Hoshino, Sadao s. Miyake, Shizuo.* 2423.
- Hoskin, N. E.* Interaction of two identical spherical colloidal particles. I. Potential distribution and *Levine, S.* Interaction of two identical spherical colloidal particles. II. Free energy. 810.
- Hostler, W. R. and Frederikse, H. P. R.* Galvano magnetic effects in InSb . 1036.
- — Electrical properties of Mg_2Sn at low temperatures. 1434.
- *s. Blunt, R. F.* 1224.
- Hospers, J.* Reversals of the main geomagnetic field. I. II. III. 1087.
- Summary of studies on rock magnetism. 2238.
- Hossain, A. s. Burge, E. J.* 773.
- *s. Freeman, R. G.* 409.
- Hostetler, D. E. s. Murray, R. L.* 1126.
- , *Menius jr., A. C. and Murray, Raymond, L.* How thermal-flux distribution affects fast-fission factor in U cylinders. 560.
- Hotta, S. s. Kimura, R.* 1273.
- Houdremont, Eduard, Wepner, Wolfgang und Wiester, Hans-Joachim.* Alterungsneigung von weichen unlegierten Stählen durch Prüfung der Härte bei Temperaturen bis 300° . 1268.
- *s. Dahl, Winfried.* 1473.
- Hough, G. H.* Development of a multicathode decade gas-tube counter. 928.
- , *J. M. and Goldsmith, B. J.* Use of high contrast in the photography of interference fringes. 158.
- , *P. V. C. s. Hockney, R. W.* 766.
- Houghton, G.* Water failure guard for diffusion pumps and condensers. 1723.
- Houldin, J. E.* Impedance-measuring equipment for the 50—500 Mc/s range. III. 2182.
- Hourd, R. F., Fleming, J. R. and Lord, J. J.* Flux of primary cosmic-ray heavy nuclei at the equator. 987.
- House, H.* Dielectric strength of organic liquids. 1237.
- *s. Morant, M. J.* 844.
- Houslip, R. C. s. Underwood, C. R.* 553.
- Houston, W. V. s. Rorschach jr., H. E.* 2075.
- Houstoun, R. A.* Theory of color vision. 1476.
- Houston, R. W.* Calculating thermal utilization for large thermal reactors. 41.

- Houtermans, F. G., Meyer-Schützmeister, L. und Vincent, D. H.* Absoluteichungen energiereicher β -Strahler mit dem 4π -Zählrohr. 2023.
- *Vincent, D. und Wagner, G.* Einbau von Schwefel bei der elektrolytischen Abscheidung von Kupfer aus Kupfersulfatlösung und Messung des Ionenradius bei der Bildung monomolekularer Oberflächenschichten. 140.
- *s. Begemann, F.* 237.
- *Theu.* Einfluß des Wachstumszustandes eines Bakteriums auf seine Strahlenempfindlichkeit. 705.
- Houtgast, J.* Indication of a magnetic field of the planet venus. 1280.
- Hove, John E.* Electronic density of states of graphite. 821.
- Magnetic susceptibility of neutron-damaged graphite. 1801.
- Surface adsorption and migration energies for KCl. 1823.
- *s. Rascer, Ned S.* 1801.
- *Léon van.* Occurrence of singularities in the elastic frequency distribution of a crystal. 1624.
- Hovi, Väinö und Hyvönen, Leo.* Free energy of formation and the gap of solubility of alkali halide solid solutions. 749.
- Hovorka, Frank s. Bugosh, John.* 2163.
- Howard, Alma.* Symposium on mode of action of ionizing radiations. 895.
- *Brian T.* Theory of electroluminescence. 1263.
- *Lorn, L.* Sudden change in the arrangement of crystallites in thin evaporated bismuth films. 1204.
- Motion picture studies of electron bombardment of evaporated bismuth films. 1842.
- *Louis N.* Vortices produced by shocks. 916.
- *R. A., Fitzpatrick, P. M., Hoffman, H. E. und Urban, J. S.* Decay of a heavy neutral particle. 43.
- *s. Stier, P. M.* 1394.
- Howarth, D. J. und Sondheimer, E. H.* Theory of electronic conduction in polar semi-conductors. 2117.
- Howe, G. W. O.* Genesis of the thermionic valve. 1490.
- *H. A. und Pearce, C. A. R.* Electrical dehydration of tar emulsions. 1207.
- *R. M. und Leite, R. J.* Low-frequency oscillator. 463.
- Howe, W. H.* High-pressure measurement and control. 1097.
- Howerton, H. K. s. Bergstrahl, T. A.* 389.
- Howes, V. R. und Tolansky, S.* Pressure crackfigures on diamond faces. I. Octahedral face. II. The Dodecahedral and cubic faces. 106.
- Howland, J. J. jr. s. Robinson, William.* 79.
- *P. R. und Scofield, N. E.* Triggering a fast two-crystal Compton scintillation spectrometer with iodine-escape X-rays from the NaI (Tl). 387.
- Hoyer, Herbert.* Ultrarotspektroskopische Untersuchung über Wasserstoffbrücken in Naphtol-as und verwandten Verbindungen. 2410.
- Hoyle, F.* Mechanism for radio noise generation. 517.
- Horizon of the steady-state universe. 882.
- Hoyte, D. W.* Optical semi-scaler. 1463.
- Hrostowski, H. J., Morin, F. J., Geballe, T. H. und Wheatley, G. H.* Hall effect and conductivity of InSb. 1860.
- — — Hall effect and conductivity of InSb. 2130.
- *s. Shulman, R. G.* 1644.
- Hsia, Y. s. Graham, C. H.* 700.
- Hsieh, Yü-Chang.* Vibrational spectrum and the specific heat of germanium and silicon. 25.
- and *Bloch, Ingram.* Single-body wave functions and two-body forces. 1930.
- *s. Bloch, Ingram.* 48.
- Hsu, Kung-Ngou s. Hu, Tsi-Ming.* 946.
- *S. S.* Diffraction of X-rays by a twisted crystal lattice. 791.
- Hu, L. W. und Marin, Joseph.* Anisotropic loading functions for combined stresses in the plastic range. 15.
- *Tsi-Ming und Hsu, Kung-Ngou.* Binding energy of the triton. 946.
- Huang, Kerson s. Drell, S. D.* 1589.
- *T. C.* Harmonic oscillations of non-linear two degree-of-freedom systems. 13.
- Hubbard, Donald.* Effect of temperature on the electrical resistance and voltage departures (errors) of glass electrodes. and upon the hygroscopicity of glass 2142.
- Hubbard, Donald und Cleek, Given, W.* Deuterium and hydrogen electrode characteristics of lithia-silica glasses. 2216.

- Hubbard, Edward L. and Lauer, Eugene J. Stripping electrons from accelerated O and Ne ions. 618.
- — Charge distributions of oxygen and neon ions passing through gases. 1166.
- , J. Dielectric theory of electronic interactions in solids. 606.
- , Willard, D. s. Kushner, Lawrence M. 1200.
- Hubbs, J. C., Hobson, J. P., Nierenberg, W. A. and Silsbee, H. B. Spin and magnetic moment of (4.7-hour) rubidium-81. 1348.
- s. Hobson, J. P. 1348, 1803.
- Huber, Elsa L. Breakdown processes in nitrogen, oxygen and mixtures. 669.
- Breakdown processes in nitrogen, oxygen and mixtures. 1045.
- Velocity of spread of burst pulses in air with coaxial cylindrical geometry. 1973.
- , K. Anodisch erzeugte Silberbromidschichten. Beitrag zur Frage nach der Struktur von Elektroden II. Art. 655.
- , Max s. Clusius, Klaus. 33, 220.
- , O. s. Deeg, E. 869.
- , P. s. Baldinger, E. 1537.
- s. Biber, C. 974.
- s. Franzen, W. 760, 1125.
- s. Seitz, J. 1142.
- , Richard. Batterien für tiefe Temperaturen. 2159.
- Hubert, P. Grivet, P. et Seiden, J. Correction annulaire d'une lentille magnétique. 2206.
- s. Auclair, J. M. 769, 2369.
- s. Marty, N. 241.
- Hubig, W. s. Möllenstedt, G. 1888.
- Hudgens, J. E., Benzing, R. O., Cali, J. P., Meyer, R. C. and Nelson, L. C. Determination of radium or radon in gases, liquids or solids. 1982.
- Hudis, J. s. Baker, E. 954.
- s. Friedlander, G. 1142.
- Huditz, F. Thermodynamik binärer azeotroper Gemische. 1511.
- Hudson, G. E. and Potts, D. H. Class of solutions of Maxwell's equations. 465.
- and Saenger, Alfred. Periodic shock production in resonating gas columns. 376.
- , Gilbert G. Streamers in positive point-to-plane breakdown in air. 670.
- , J. C. Prevention of the corrosion of ferrous metals. 1901.
- Hudson, P. s. Ambler, E. 569.
- , R. L. s. Ferguson, E. E. 432.
- , R. P. s. Ambler, E. 2359.
- Hudspeth, Emmet L. s. Bostrom, Norman A. 1539, 1979.
- s. Richard, James A. 52.
- s. Sattar, Abdul R. 1542.
- Hübner, Walter. Elektrometrischer Photozellenkompensator, Gerät zur Messung der Dosis und Dosisleistung ionisierender Strahlung. 1903.
- Hückel, E. s. Brot, C. 2168.
- Hügi, Th. s. Huttenlocher, H. 1624.
- Hürzeler, H. s. Clusius, K. 902.
- Hüttig, G. F. und Härtl, E. Beziehungen zwischen chemischer und sorptiver Affinität. 32.
- Huff, Karl s. Müller, F. H. 2084.
- Huffman, John R. Materials Testing Reactor. 761.
- Hug, O. s. Rajewsky, B. 341.
- Hugel, M. F. s. Maniey, J. 552.
- Huggett, R. W. s. Burwell, J. R. 939, 1335.
- s. Kim, Y. B. 394, 938, 1520.
- s. Thompson, R. W. 43.
- Huggins, Charles M. s. Pitzer, Kenneth S. 1319.
- , Maurice L. Photographic latent image. III. Dimensional changes in silver bromide following exposure. 2533.
- Hughes, D. H. and Pilcher, V. E. Measurement of Γ_n^2/D ratio by average cross sections. 1383.
- s. Levin, J. S. 2348.
- , D. J. Neutron widths of nuclear energy levels. 1152.
- Reactor as a neutron source. 233.
- Pile neutron research techniques. I. 1985.
- Rapid analysis of neutron resonances. 2037.
- and Harvey, J. A. Radiation-widths of nuclear energy-levels. 964.
- — Size distribution of neutron widths. 1559.
- s. Carter, R. S. 1594.
- s. Harvey, J. A. 1549.
- s. Levin, J. S. 1152, 2378.
- s. Palevsky, H. 1594, 1753.
- s. Pilcher, V. E. 1554.
- , E. W. s. Yakel jr., H. L. 1005.
- , G. E. and Miller, H. A. Fast-response magnetic amplifiers. 2503.
- , I. S. and Sinclair, D. Polarization of γ -radiation from the reactions $^{27}\text{Al}(p, \gamma)^{28}\text{Si}$, $^{26}\text{Mg}(p, \gamma)^{27}\text{Al}$, $^{23}\text{Na}(p, \gamma)^{24}\text{Mg}$. 1162.

- Hughes* s. *Bosley*, W. 775.
 — s. *Duke*, P. J. 774.
 —, J. C. Testing of hydrometers. 1099.
 —, J. s. *Ross*, M. A. S. 412.
 —, J. W. and *Pike*, E. R. Monitored Geiger-counter X-ray powder diffractometer with automatic recording. 1896.
 —, *Lewis*, Isabel E. and *Wilson*, A. J. C. Errors in the A. S. T. M. index of X-ray powder diffraction patterns. 1472.
 —, R. H. Isotope shift in the first spectrum of atomic lithium. 1809.
 —, R. R. s. *Oppenheim*, A. K. 736.
 —, V. W. and *Geiger*, J. S. Two quantum transitions in the microwave Zeeman spectrum of atomic oxygen. 436.
 — — Two-quantum transitions in the microwave Zeeman spectrum of atomic oxygen. 2107.
 — s. *Marder*, S. 1331.
 — s. *Teutsch*, W. B. 96, 1331.
 — s. *Weinreich*, Gabriel. 429.
 —, W. T. s. *Moore*, George E. 618.
Hugo, T. J. s. *Herzberg*, G. 2411.
 — s. *Naudé*, S. M. 2061.
Huhta, Hoobert. Flux resetting of several magnetic materials. 2452.
Huibregtse, E. J., *Drougard*, M. E. and *Young*, D. R. Electromechanical behavior of single crystals of BaTiO₃. 1239.
Huiskamp, W. J. s. *Wheatley*, J. C. 2358.
Huizenga, J. R. Isotopic masses. III. A > 201. 2357.
 — and *Stevens*, C. M. Long-lived isotopes of lead. 1355.
 — s. *Andre*, C. G. 2366.
 —, *Fields*, P. R. 1578, 2370.
 — s. *Ghiorso*, A. 1322.
 — s. *Magnusson*, L. B. 579.
 — s. *Studier*, M. H. 1355.
Huke, Kazuo and *Iwata*, Giiti. Effect of field bump in a strong focusing synchrotron. 935.
Hulbert, J. A. and *Jones*, G. O. Superconducting bolometer as a detector of thermal radiation from low-temperature sources. 746.
Hulburt, E. O. Papers in the Journal of the Optical Society of America. 1061.
 — *Frederic Ives* medalist for 1955. 894.
Huldt, L. Deutung spektrochemischer Temperaturmessungen. 1314.
 — Wachstumskurven bei großen optischen Dicken. 251.
Huldt s. *Lagerqvist*, Albin. 2057.
Hull, Edward L. s. *Honig*, Jurgen M. 2445.
 —, G. W. and *Geballe*, T. H. Thermal conductivity of single crystalline silicon. 1030.
 — s. *Geballe*, T. H. 1030, 1432.
 —, H. L. Control engineering. 1988.
 — jr., M. H., and *Saperstein*, A. M. Formula for polarization in p-p scattering for P and F waves. 84.
 — s. *Breit*, G. 81, 413, 414.
 — s. *Daitch*, P. B. 82.
 — s. *Ebel*, M. E. 1591.
 — s. *Gluckstern*, R. L. 1171.
Hulm, J. K. Superconducting rhenium alloys and compounds. 1647.
 — Thermal conductivity of a copper-nickel alloy at low temperatures. 1897.
Hulme, K. F. Distribution of impurity in crystals grown from impure unstirred melts. 258.
Hulthberg, Sölve. Longitudinal angular distribution of photoelectrons at gamma ray energies of 0.41, 0.66 and 1.33 Mev. 92.
Hulthén, E. and *Neuhaus*, H. Diffraction gratings in immersion. 313.
Hultschig, H. s. *Lösche*, A. 1206.
Hultzsch, E. Wahrscheinlichkeitsnetz für graphischen Fehlerausgleich. 904.
Humbach, W. Über die für ein Synchrotron mit starker Fokussierung erforderliche Justiergenauigkeit. 41.
 — s. *Finkelnburg*, W. 249.
 — Deutung der Feinstrukturanomalie des Positroniums. 1129.
Humbel, F., *Jona*, F. und *Scherrer*, P. Anisotropie der Dielektrizitätskonstante des Eises. 481.
Humblet, J. Definition of the virtual level of the deuteron. 588.
Humby, A. M., *Minnis*, C. M. and *Hitchcock*, R. J. Performance characteristics of high-frequency radiotelegraph circuits. 847.
Hume-Rothery, W. s. *Sutton*, A. L. 867.
Hummel, J. s. *Stephens*, F. 1792.
 —, J. P., *Stephens*, jr., *Frank* S., *Asaro*, Frank, *Chetham-Strode* jr., A. and *Perlman*, I. Alpha and gamma spectra of Cf²⁴⁶. 965.
 —, *Asaro*, F. and *Perlman*, I. Alpha decay of Pa²³¹. 1792.
Humphrey, George, *Dawe*, P. G. M. and *Mandell*, Bernard. High-speed electronic tachistoscope. 1274.

- Humphrey, George, James N.* Sensitization of photoconductivity in PbSe. 1862.
- Hund, Friedrich* 60 Jahre. 1290.
- Hunger, K. und Traving, G.* Näherungslösungen des nichtgrauen Strahlungsgleichgewichtsproblems. 2233.
- Hunt, D. J. and Pish, G.* Isotopic analysis of polonium-208-209 mixtures. 1546.
- *s. Charles, G. W.* 620.
- *F. R. s. Brannen, Eric.* 156, 1809.
- *F. V.* Stylus-groove rations in the phonograph playback process. 742.
- *J. N.* Gravity waves in flowing water. 205.
- *R. W. G.* Perception of color in 1° fields for different states of adaptation. 2225.
- *S. E. and Hancock, D. A.* Proton-gamma resonances in magnesium. 73.
- Hunten, D. M.* Seasonal intensity variation of twilight sodium emission. 709.
- Photometric observations of auroral spectra. 1912.
- Excitation of the sodium D lines in the nightglow. 1912.
- *s. Shepherd, G. G.* 886.
- Hunter, Richard S.* Recording goniophotometer. 2194.
- Huntington, H. B.* Modification of the Peierls-Nabarro model for edge dislocation core. 1408.
- Huntoon, R. D., Weiss, Albert and Smith, Wray.* Electronic fringe interpolator for an optical interferometer. 857.
- Hunzinger, Jean-Jacques.* Comparateur interférentiel du Laboratoire d'Essais du Conservatoire National des Arts et Métiers. 728.
- Huré, J. s. Coriou, H.* 295.
- Hurley, A. C.* Method of atoms in molecules. II. Intra-atomic correlation correction. 1401.
- Electrostatic calculation of molecular energies. IV. Optimum paired-electron orbitals and the electrostatic method. 2052.
- Method of atoms in molecules. III. Ground state of hydrogen fluoride. 2053.
- and *Lennard-Jones, Sir John.* Molecular orbital theory of chemical valency. XIV. Paired electrons in the presence of two unlike attracting centres. 2053.
- Hurrlé, Karl.* Stand der Entwicklung im Bau von Hochspannungs-Prüftransformatoren. 675.
- Hursh, John B. and Gates, Allan A.* Body radium content of individuals with no known occupational exposure. 2230.
- Hurst, D. G. and Henshaw, D. G.* Slow neutron scattering by liquid helium. 978.
- Atomic distribution in liquid helium by neutron diffraction. 1628.
- *G. S.* Absolute tissue dosimeter for fast neutrons. 342.
- *s. Melton, C. E.* 415.
- *s. Mills, W. A.* 875.
- *W. M.* Monitoring of liquids for radioactivity. 2559.
- Hurrich, Leo M. and Jameson, Dorothea.* Spectral sensitivity of the fovea. III. Heterochromatic brightness and chromatic adaptation. 513.
- Quantitative aspects of an opponent-colors theory. II. Brightness, saturation and hue in normal and dichromatic vision. 1477.
- *s. Jameson, Dorothea.* 513.
- Hurwitz jr., H.* Safeguard considerations for nuclear power plants. 761.
- *s. Zweifel, P. F.* 2390.
- *J. K.* Selection of homologous spectral-line pairs. 496.
- Observations on sparked craters in spectrographic micro-volume analysis. 505.
- Husain, A.* Electron scattering in photographic emulsions. 2392.
- and *Pickup, E.* Mass spectrum of shower particles from cosmic-ray interaction. 990.
- Nuclear interaction of K mesons. 990.
- *Jarvis, C. J. D. and Pickup, E.* Identification of cosmic-ray shower particles in emulsions. 248.
- Mass measurements of particles and existence of 1450 m_e mesons. 1756
- *s. Jarvis, C. J. D.* 616.
- *s. Pickup, E.* 1146.
- Huse, M. C. s. Blatt, F. J.* 1214.
- Hush, N. S.* Reduction potentials and unsaturation energy changes in electrode reactions leading to the formation of acridyl radicals. 2144.
- and *Pople, J. A.* Ionization potentials and electron affinities of conjugated

- hydrocarbon molecules and radicals. 1810.
- Husimi, Kôdi and Ôtuka, Masuhiko. Miscellanea in elementary quantum mechanics. III. 2266.
- Husmann, W. s. Fendler, H. G. 266.
- Huss, Edward H. Corrosion of pump parts. 2274.
- , John s. Jacquez, Hohn A. 2192.
- Hussain, Zakur. Argument of Newton. 1918.
- Newton's law of attractions. 1937.
- Hussein, M. Kamal s. Tourky, A. Riad. 1864.
- Hutcheon, J. M. s. Beirne, T. 2099.
- Hutchinson, G. W. Possible relation of galactic radio noise to cosmic rays. 2235.
- , W. P., Pulsford, E. W. and White, A. G. Temperature control of a large water bath using a resistance thermometer. 1303.
- Hutchison jr., Clyde A. and Pastor, Ricardo C. Paramagnetic resonance absorption in solutions of K and Na in liquid NH_3 . 122.
- s. Anderson, John H. 122.
- , Dwight A. Natural abundance of the lithium isotopes. 1535.
- s. Hart, Edwin J. 612.
- , T. S. and Filmer, A. J. Attenuation of 5 Mc. sound in aluminum at low temperatures. 2302.
- Huth, J. H. Elastic wedge problem. 911.
- Hutson, Andrew R. Velocity analysis of thermionic emission from single-crystal tungsten. 1242.
- Huttenlocher, H., Hügi, Th. und Nowaccki, W. Röntgenographische und spektrographische Untersuchungen am Bazzit vom Val Strem (Kt. Graubünden, Schweiz). 1624.
- Hutto, E. s. Pate, W. 235.
- Huus, Torben and Lundén, Arnold. Coulomb excitation of isomeric state in silver. 240.
- and Zupančič, Črtomir. Excitation of nuclear rotational states by the electric field of impinging particles. 2381.
- s. Day, Robert B. 770.
- Huxley, L. G. H. and Crompton, R. W. Diffusion in a gas of electrons from a small source. 668.
- s. Hall, B. I. H. 667.
- Huzinaga, S. s. Araki, G. 2062, 2361.
- Huzita, H. s. Nakagawa, S. 1147.
- Huzurbazar, V. S. Certainty of an inductive inference. 182.
- Hwang, Jenn-Lin. Specific heats of simple solids and moments of elastic frequency spectra. 25.
- Hyams, B. D. s. Duerden, T. 2343.
- Hyde, E. K., Florence, M. G. and Larsh, A. E. Isomeric state of Y^{88} in the decay of Zr^{88} . 74.
- and Ghiorso, Albert. Alphabranching of AcK and the presence of astatine in nature. 50.
- s. Mathur, H. B. 73, 591, 956.
- , F. J. Impedance of a thermistor at low frequencies. 1039.
- Measurement of noise spectra of a germanium p-n junction diode. 1437.
- Excess noise spectra in germanium. 2470.
- Hydén, H. s. Bourghardt, S. 1273.
- Hylleraas, Egil. Expansion of products of Laguerre polynomials. 1491.
- Hyman, R. A. Epitaxial growth of crystals of hexagonal selenium. 2420.
- , Seymour C., Minushkin, Bertram and Certaine, Jeremiah. How drill-hole diameter affects gamma-ray intensity. 1125.
- Hymo, L. A. s. Florin, R. E. 1632.
- Hyodo, Shin-ichi. High speed elongation of long test-piece of rubber. 2440.
- Hyvönen, Leo s. Hovi, Väinö. 749.

I

- Iandelli, A. s. Mazza, L. 2417.
- Ibamoto, Hideko s. Itoh, Junkichi. 2462.
- Ibl, N. and Müller, R. Optische Untersuchungen der Diffusionsschicht und der hydrodynamischen Grenzschicht an belasteten Elektroden. 657.
- Ibuki, Sumiaki s. Yoshimatsu, Seiichi. 2478.
- Ichimura, Hiroshi. Theory of the high polymer solution. 2437.
- Statistical thermodynamics of the superconducting state. 2467.
- Ichishima, Isao and Mizushima, San-ichiro. Entropy of crystalline benzene calculated from molecular data. 380.
- s. Mizushima, San-ichiro. 996.
- Ida, Mitsuo. X-ray studies on long chain compounds solidified under an alternating electric field. 1011.

- Ifland, R. s. Becherer, G.* 2415.
Igarashi, Yoshitaka s. Yoshida, Shigetomo. 2500.
Igo, G. Total neutron cross section of rhenium. 1553.
 — Slow neutron resonances in rhenium. 1568.
 — and *Landon, H. H.* Radiation widths in the slow neutron resonances of hafnium. 2375.
 — and *Wegner, H. E.* Anomaly in nuclear energy level density measurements. 1791.
 — and *Wertheim, M. S.* Isotope shift in X-ray spectra of heavy elements. 429.
 —, *Wegner, H. E. and Eisberg, R. M.* Elastic scattering of 40-Mev alpha particles from light nuclei. 1167.
 — s. *Eisberg, R. M.* 1796, 2033.
 — s. *Wegner, Harvey E.* 1587.
 — s. *Wertheim, M. S.* 1807.
Iguchi, S. Eigenschwingungen und Klangfiguren der vierseitig freien rechteckigen Platte. 1502.
Iha, J. B. s. Bhattacharya, Amal K. 2141.
 —, *Sampat Dayal.* Effect of supersaturation on the viscosity of solutions. 201.
 — and *Rideal, Eric.* Isothermal balance. I. 2081.
Ihsan, M. A. Nuclear energy levels of Be^8 from $\text{Li}^7(\text{d}, \text{n})\text{Be}^8$. 961.
Iijima, T. Diffraction theory of the electromagnetic waves by a slot of infinite length. 1664.
Iizuka, T. s. Kitagawa, N. 2576.
Ikeda, M. s. Takeno, H. 2264.
 — Static solutions of Einstein's generalized theory of gravitation. II. 1714.
 — Five dimensional representation of the electromagnetic and electron field equations in a curved spacetime. 2270.
 —, *Takuro s. Nomoto, Otohiko.* 2301.
 —, *Yuichi.* Verwey-Overbeek's theory of the interaction force between two colloidal particles. 2449.
 — s. *Saitô, Nobuhiko.* 2530.
Ikegami, Ryôhei. Nomogram for magnification of seismometer. 352.
 — Vibrations of a building caused by microseisms. 352.
 — Ground vibrations caused by explosions. 1288.
 — and *Kishinouye, Fuyuhiko.* Propagation of microseismic waves. I. II. 11. IV. 352.
Ikeno, Nobuichi s. Zen'iti, Kiyasu. 2513.
Ikenoue, Katumi. Rotational structure of the band spectrum of S_2 molecule. I. 2412.
Ilievici, A. Bouthillon, L. et Mauduit, A. Champ magnétique et force magnétomotrice. Rationalisation des grandeurs et rationalisation des unités. 541.
Iloff, E. L., Chupp, W. W., Goldhaber, Gerson, Goldhaber, S., Lannutti, J. E., Pevsner, A. and Ritson, D. Mean lifetime of positive K mesons. 1756.
 — *Goldhaber, Gerson, Goldhaber, Sulamith, Lannutti, Joseph E., Gilbert, F. Charles, Violet, Charles E., White, R., Stephen. Fournet, D. M., Pevsner, A., Ritson, D. and Widgoff, M.* Mean lifetime of negative K-mesons. 2353.
 — s. *Lannutti, Joseph E.* 1997.
Ischner, B. Diffusion elektrisch geladener Gitterfehlstellen verschiedener Beweglichkeit. 108.
 — Temperaturabhängigkeit der freien Energie von Mischkristallen. 1315.
 — s. *Engell, H.-J.* 659.
 — s. *Pfeiffer, H.* 2214.
Imaeda, Yoshiro s. Shimomura, Kenji. 1422.
Imai, Isao. Refinement of the transonic approximation theory. 917.
 — Solutions of compressible flow equations for arbitrary pressure-density relation. 2290.
 — Discontinuous potential flow as the limiting form of the viscous flow for vanishing viscosity. 2292.
 — Asymptotic behaviour of compressible fluid flow at a great distance from a cylinder in the absence of circulation. 2292.
 —, *Nobuhisa s. Osawa, Fumio.* 454.
Imhof, William, Perez-Mendez, V. and Easterday, H. π^+ photomeson production from various nuclei at 135° . 1759.
Immer, F. s. Exner, M.-L. 1734.
Inall, E. K. and Boyle, A. J. F. Low intensity lines in the spectrum of the gamma-rays from ${}^7\text{Li}(\text{p}\gamma){}^8\text{Be}(\alpha){}^4\text{He}$. 2033.
Ince, A. N. Effect of intense magnetic fields on electroluminescent powder phosphors. 327.
 — and *Oatley, C. W.* Electrical properties of electroluminescent phosphors. 693.

- Inchauspé, Capucine and Inchauspé, Nicolas.* Polarization in insulating crystals. 1217.
- Photoconductivity in potassium iodide. 1435.
- s. *Inchauspé, Capucine.* 1217.
- Ingelstam, Erik.* Highly sensitive phase-contrast refractometer for liquids and gases. 2191.
- et *Johansson, Lars.* Sensibilité différentielle de l'oeil aux couleurs dans l'échelle de *Newton* notamment pour les teintes sensibles. 514.
- Ingerslev, F.* Measurements of nonlinear distortion in loudspeakers. 1733.
- Ingersoll, L. R. and James, W. L.* Sensitive photoelectric method for measuring the *Faraday* effect. 497.
- and *Liebenberg, D. H.* *Faraday* effect in gases Experiment and theory. 1888.
- , — *Faraday* effect in gases and vapors. I. 2531.
- Ingham, H. s. Pearlstein, E.* 1175.
- s. *Smoluchowski, R.* 1175.
- Inghram, Mark G. und Gomer, Robert.* Massenspektrometrische Untersuchungen der Feldemission positiver Ionen. 759.
- , — Mass spectrometric analysis of ions from the field microscope. 1069.
- , *Long, Earl and Meyer, Lothar.* Adsorption of mixtures of He^3 and He^4 . 635.
- Ingle, G. W. and Rudick, L.* Comparison of the *MacAdam* and the *Adams-Nickerson* indexes of color differences. 2226.
- Inglete, A. W.* *Lorentz* transformation. 1923.
- Inglis, D. R.* Dynamics of nuclear deformation. 565.
- Energy levels and the structure of light nuclei. 1158.
- Particle derivation of nuclear rotation properties associated with a surface wave. 1760.
- s. *Holland, R. E.* 590. 1787.
- s. *Lee, L. L. jr.* 1551.
- Ingraham, R. L.* Extension of the *Maxwell* theory. 1425.
- Ingram, D. J. E. and Tapley, J. G.* Electron resonance in gas discharges. 141.
- *Hodgson, W. G., Parker, C. A. and Rees, W. T.* Detection of labile photochemical free radicals by paramagnetic resonance. 2414.
- Ingram, D. J. s. Bennett, J. E.* 816.
- Inn, Edward C. Y.* Vacuum ultraviolet spectroscopy. 493.
- Innes, K. Keith.* Analysis of the near ultraviolet absorption spectrum of acetylene. 2061.
- Inoki, M., Yasaki, T. and Matsukawa, Y.* Mass measurements of slow cosmic-ray mesons. 47.
- Inoue, Nobuo.* Hypothetical gases. 2272.
- , *Noriyoshi s. Shimomura, Kenji.* 1422.
- , *T. s. Kimura, R.* 1273.
- Insch, G. M.* Calibration of proportional counters by the excitation of fluorescence radiation with radioactive sources. 1975.
- Inskeep, Richard G. s. Crawford, Bryce L.* 431.
- Inthoff, W.* Statistische Theorie der Atomkerne. 1137.
- Inui, Teturo s. Toyozawa, Yutaka.* 1406.
- Ippen, A. T. and Carver, jr. C. E.* Dissolved-oxygen measurement. 194.
- Irani, K. B.* Low-pass/band-pass frequency transformation. 2514.
- Iredale, P. s. Dahanayake, C.* 561.
- s. *Davies, J. H.* 763.
- Irish, Carolyn R. s. Rosenberg, Samuel J.* 2543.
- Irvin, Barbara and Breazeale, F. B.* Adaptation of the norelco high-angle spectrometer to the measurement of the X-ray diffraction of fibers. 111.
- Irvine, D. H. s. George, P.* 2310.
- , *J. W. jr. s. Wall, N. S.* 935.
- Irving, E. s. Creer, K. M.* 2238.
- , *J. and Schonland, D. S.* Energy of the ground state of Li^6 . 565.
- Isard, J. O. s. Whitehead, S.* 2085.
- Isay, Wolfgang-Hermann.* Behandlung der kompressiblen Unterschallströmung durch axiale und radiale Schaufelgitter. 737.
- Isbell, Horace S. s. Frush, Harriet L.* 2344.
- Isbin, H. S. and Gorman, J. W.* Pile-kinetic equations. 1988.
- Ise, jr., John, Hicks, Donald A. and Pyle, Robert V.* Neutron multiplicity spectrum from spontaneous fission. 1356.
- *Lagarrique, Andre and Pyle, Robert V.* Inelastic cross sections for 5-Bev π -bevatron beam in lead and aluminum. 1800.
- , *Pyle, Robert V., Hicks, Donald A., and Muin, Robert M.* Production of 320-Mev deuterons by He^3 stripping. 2346.

- Ise s. Hicks, Donald A. 577, 2020.
 — s. Pyle, R. V. 1777.
 — s. Schecter, Larry. 557.
 Isenor, Neil R. s. Kerr, John T. 947.
 Ishiguro, Eiichi s. Kotani, Masao. 2271.
 —, Kôzô and Katô, Toshio. Reflection and transmission of a multi-layer film. 2449.
 Ishikawa, G. Longitude effect of a corpuscular stream from the sun. 2569.
 —, Kadena, M. and Kitamura, M. Effect of the atmospheric electric field upon the observation of ions in the atmosphere. 2575.
 Ishiwari, Ryutaro s. Kimura, Kiichi. 2388.
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 Isiguro, Kozo s. Kuwabara, Goro. 2540.
 Ishihara, Akira. Theory of transport phenomena in polyatomic gases. 2337.
 Isii, Taka s. Tokunaga, Senzo. 1136.
 Ising, Gustav. Zu Griffiths, D. H.: Remanent magnetism of varved clays from Sweden. Discussion. 2241.
 Iskraut, R. W. Angular momentum in Dirac's new electrodynamics. 1928.
 Isobe, Kosaku and Motokawa, Koiti. Functional structure of the retinal fovea and Maxwell's spot. 698.
 — s. Motokawa, Koiti. 701.
 Isoya, Akira. Magnetic ion source of capillary arc type. 2345.
 Israël, H. Atmospheric electric field and its meteorological causes. 526.
 — Experimental problem in the atmospheric-electrical synopsis. Separation of conducting current and Maxwell's displacement current in measurements of the air-earth current. 889.
 — und Fries, G. Gerät zur spektroskopischen Analyse verschiedener Blitzphasen. 2576.
 Issajew, B. W. s. Andrejeschtschew, Je. 225.
 Itabashi, Kiyomi s. Sato, Iwao. 2009.
 Itami, Akira s. Kawata, Suekichi. 13.
 Ito, D. Divergence of the transition probability due to energy conservation in intermediate states. 2382.
 — and Minami, Shigeo. Tentative analysis of π - 2π process. 1758.
 — Miyamoto, Yoneji and Watanabe, Yukihiko. Intermediate coupling theory of pseudo-scalar meson field and a nucleon. 2270.
 —, G. s. Eisberg, R. M. 1535.
 —, Ryumyo. End effects in Geiger Mueller counters. 2339.
 Ito, S. s. Takemoto, S. 2367.
 —, T. Morimoto, N. and Sadanaga, R. Crystal structure of realgar. 2066.
 —, Y. s. Kiyoura, R. 747.
 Itoh, Junkichi, Kusaka, Riichiro and Yamagata, Yukio. Electric quadrupole splitting of the nuclear magnetic resonance lines of sodium in a single crystal of $\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$. 1019.
 —, —, — Kiriyaama, Ryoiti and Ibamoto, Hideko. Nuclear magnetic resonance experiment on the single crystals of $\text{K}_2\text{HgCl}_4 \cdot \text{H}_2\text{O}$ and $\text{K}_2\text{SnCl}_4 \cdot \text{H}_2\text{O}$. II. Resonance absorption due to four proton system and the revised determination of their crystal structures. 2462.
 —, —, —, —, Kanda, Teinosuke and Masuda, Yoshika. Nuclear magnetic resonance experiment on the single crystals of $\text{K}_2\text{Hg} \cdot \text{H}_2\text{O}$ and $\text{K}_2\text{SnCl}_4 \cdot \text{H}_2\text{O}$. I. 2462.
 —, Takeshi s. Ohno, Kimio. 1185.
 — s. Shimoda, Koichi. 101.
 Itterbeek, A. van and Forrez, G. First sound measurements in liquid helium. 262.
 — and Nihoul, J. Measurements of thermal diffusion in H_2 -He mixtures by using ultrasonics. 2336.
 — Greve, L. de, Gerven, L. van and Schepers, J. Measurements on superconductivity in thin tin films. 2114.
 Ittner III, William B. and Ter-Pogossian, Michel. Air equivalence of scintillation materials. 343.
 —, — Scintillation probe for determining relative beta-ray intensities. 758.
 Ivanoff, Alexandre. Night binocular convergence and night myopia. 1692.
 — Aberration sphérique de l'oeil. 2225.
 —, Nina et Haïssinsky, M. Observations sur l'effet Szilard et Chalmers dans l'acide chromique et le sulfate de chrome. 1780.
 Ivin, K. J. and Steacie, E. W. R. Disproportionation and combination of ethyl radicals: photolysis of mercury diethyl. 2202.
 Iwadare, J. s. Fujii, S. 2360.
 — Nonadiabatic treatment of nuclear forces. I. Static limit. 1768. II. Nonstatic corrections. 2360.
 — Nonstatic corrections to the fourth order nuclear forces. 1768.
 Iwanaga, Kenzo s. Kumagai, Hiroo. 2460.

Iwanenko, D. und Zytowitsch, W. N. Theorie des Energieverlusts geladener Teilchen beim Durchdringen eines Ferromagnetikums. 244.

Iwanowa, N. I. Temperaturbedingungen für die Entstehung von Kristallphosphoren. 1893.

Iwasaki, M., Nagase, S. and Kojima, R. Molecular structure of 1,1,2,2-tetrafluorodichloroethane. 2054.

Iwata, Giiti s. Huks, Kazuo. 935.

—, *Kenzo.* Spin of the μ -meson. 2355.

—, *Minoru.* Interference filter The characteristics of the alternating layer type interference filter. 2525.

Iversen, John E. and Koski, W. S. Gamma rays in the decay of Na^{25} . 971.

Iyengar, K. S. Photo-elastic dispersion in cubic crystals. 2281.

Iyer, P. V. Krishna. Difference equations of moment-generating functions for some probability distributions. 1921.

Izaki, M. s. Maeda, K. 2574.

Izumo, Ko. Elastic scattering of alpha-particles by heavy nuclei. 1374.

J

Jabłoński, A. Virtual oscillators in the metallic model of luminescent molecules. 691.

Jablonski, F. E. s. Ferguson, G. A. 1119.

Jache, Albert W., Blevins, Gilbert S. and Gordy, Walter. Millimeter wave spectra of SbH_3 and SbD_3 . 786.

—, *Blevins, Gilbert S.* 786.

Jacka, F. Southern auroral zone as defined by the position of homogeneous arcs. 2242.

Jackson, Donald. Direct non-ashing technique for the spectrographic analysis of used lubricating oil. 506.

—, *D. A.* Isotope effect in the spectrum of indium I. 1612.

—, *s. Blaise, J.* 857.

—, *H. E. s. Bollinger, L. M.* 957.

—, *J. D. s. Betts, D. D.* 1167.

—, *J. David.* Nuclear resonance fluorescence experiments. 2379.

—, *s. Sharp, Robert T.* 1495.

—, *J. E. s. Seddon, J. C.* 180.

—, *John E.* Measurements in the E-layer with the Navy Viking rocket. 523.

—, *J. E. s. Seddon, J. C.* 887, 1484.

Jacob, François, Siminovich, Louis et Wollman, Élie. Biosynthèse d'une colicine et sur son mode d'action. 1479.

Jacob, L. s. Clarke, W. W. H. 2206.

—, *M.* Histoire sommaire illustrée des appareils de pesage. 2279.

—, *Mme Monique s. Perey, Mlle Marguerite.* 2551.

Jacobs, Gilbert. Structure du protoxyde de silicium. 29

—, *Harold, Brand, Frank A. and Matthei, Wesley.* Forming silicon point contact transistors. 2139.

—, —, —, *Ramsa, Alexander P.* Forming point-contact silicon transistors. 2480.

—, *s. Brand, Frank A.* 485.

—, *Ira.* Perturbation calculation of the volume exclusion effect. 1413.

—, *J. A.* Behavior of a certain symmetrical top. 908.

—, *S. J. s. Michels, A.* 214.

Jacobsohn, B. A s. Chang, C. H. 366.

—, *Boris A.* Nuclear fine structure in the μ -mesonic atom. 399.

—, *Kurt e daSilveira, Marieta.* Actividade enzimática e radiações ionizantes. 1276.

Jacobson, A. s. Ferlazzo, G. 2229.

—, *Rosemary s. Evans, William H.* 2309.

Jacobus, D. D., Gould, C. L., Grisoli, J. J. and Polk, I. J. Electron analog. Construction. 1752.

Jacottet, P. s. Rachel, A. 1291.

Jacqué, Léon s. Collette, Gaston. 508.

—, *s. Hamard, Pierre* 2441.

Jacques, Jean s. Horeau, Alain. 550.

—, *R.* Influence de l'état physique sur la période du ^7Be . 1780.

Jacquesson, J. s. Bourgeois, J. 1989.

Jacquez, John A., McKeehan, Wayne, Huss, John, Dimitroff, James M. and Kuppenheim, Hans F. Integrating sphere for the measurement of reflectance with the Beckman model DR recording spectrophotometer. 2192.

Jacquinet, Pierre. Luminosity of spectrometers with prisms, gratings or Fabry-Perot etalons. 1461.

—, *Utilisation des basses températures en spectroscopie optique.* 2192.

Jacrot, B., Netter, F. et Raievski, V. Étude du facteur de multiplication dans la Pile de Saclay. 234.

—, *s. Herpin, A.* 775.

Jaeger, J. C. and Harper, A. F. A. Nature of the surface of the moon. 350.

—, *R. s. Bunde, E.* 1079.

—, *s. Rajewsky, B.* 346.

- Jaeger s. Thoraues, R.* 1693.
- Jäkel, Theobald.* Messung der Dielektrizitätskonstanten von Flüssigkeiten im Dezimeterwellenbereich. 2495.
- Jaenicke, Walther und Schott, Claus.* Photographische Entwicklung als Elektrodenvorgang 1468.
- , *Tischer, Ragnar P. und Gerischer, Heinz.* Anodische Bildung von Silberchlorid-Deckschichten und Umlagerungserscheinungen nach ihrer kathodischen Reduktion zu Silber. 296.
- Jaffe, A. A. s. Calvert, J. M.* 572, 603, 1592.
- Jaffé, George and Rider, John A.* Polarization in electrolytic solutions. 2147.
- , *H. H.* Valenzkräfte in drei- und viergliedrigen Ringen. 621.
- Jaffe, I. s. Ziegler, C. A.* 388.
- , *J. H. and Oppenheim, U.* Automatic absolute reflectometer. 2527.
- , *Rank, D. H. and Wiggins, T. A.* High resolution in the infrared by interferometry. Unambiguous display without overlapping orders. 1619.
- , —, — Extreme resolution of infrared absorption spectra. 1882.
- , —, — Extreme resolution of infrared absorption spectra. 854.
- , *Joseph H. s. Oppenheim, Uri.* 2092.
- Jaffey, Arthur H.* Solid angle subtended by a circular aperture at point and spread sources: formulas and tables. 388.
- Jaffray, J.* Comportement de la conductibilité électrique de substances non métalliques en un point de transformation ou de transition. 2118.
- Jaffray, Jean et Lyand, Raymond.* Etude de l'évolution de quelques propriétés du sesquioxyde de vanadium au voisinage de ses transformations. III. Chaleur spécifique du sesquioxyde de vanadium. 2422.
- et *Martin, Pierre.* Points de transition du carbonate de sodium anhydre. 2421.
- Jaggi, R.* Probenform und Anordnung der Potentialsonden bei Halleffektmessungen ohne und mit äußeren Magnetfeldern. 2466.
- Jaggi, R. s. Busch, G.* 1649.
- Jagodzinski, Heinz.* Scharfe und diffuse Röntgenstrahlinterferenzen bei der Alterungshärtung. 1895.
- *s. Hofmann, Ernst-Günter.* 2065.
- Jahn, Herbert.* Messung des zeitlichen Verlaufes der Dosisleistung an Röntgenimpulsanlagen mit dem Szintillationszähler. 172.
- , *H. A. and Hope, J.* Symmetry properties of the Wigner 9j symbol. 1295.
- Jahn, Robert G.* Refraction of shock waves at a gaseous interface. 916.
- Jahr, Karl Friedrich und Kubens, Rolf.* Kryoskopisches Verhalten der Säuren und sauren Salzen in gesättigter Natriumsulfatlösung. 749.
- Jain, M. K.* Boundary layer effects in non-Newtonian fluids. 731.
- Motion of an infinite cylinder in rotating non-Newtonian liquid. 2285.
- *P. L. s. Spence, R. D.* 121.
- , *S. C. and Krishnan, K. S.* Distribution of temperature along a thin rod electrically heated in vacuo. V. Time lag. 1960.
- Jakobs, Ferdinand.* Feldelektronen-Mikroskop. 1259.
- Jakobson, Mark s. Heusinkveld, Myron.* 1752.
- , *Mark J. s. Repp, Gordon, W.* 1341.
- *s. White, R. Stephen.* 1341, 1525.
- Jaksic, Borivoj.* Selection rules for meson decays into two bosons imposed by the conservation of angular momentum and parity. 2350.
- James, A. T.* Noncentral Wishart distribution. 1292.
- , *C. G. and Sudgen, T. M.* Identification of the flame spectra of the alkaline-earth metals. 628.
- , *s. Bulewicz, Elzbieta M.* 2329.
- , *D. B., Kubelka, W. and Heiberg, S. A.* Pulse amplitude distribution in a BF_3 counter irradiated with 4.87-Mev neutrons 1515.
- , —, — and *Warren, J. B.* Pulse height distribution from boron trifluoride proportional counters irradiated with 4.87-Mev. neutrons. 929.
- , *s. Erdman, K. L.* 66
- , *s. Heiberg, S. A.* 1351.
- , *s. Warren, J. B.* 66.
- , *H. D.* Selenium rectifiers for high capacity applications. 2175.
- , *H. M. s. Keenan, T. A.* 1194.
- , *Hubert M. and Krieger, Theodore J.* Equivalence of Chang's and Nakamura's theories of hindered rotation in molecular crystals. 2068.
- , *W. L. s. Ingersoll, L. R.* 497.

- Jameson, Dorothea and Hurvich, Leo M.* Spectral sensitivity of the fovea. II. Dependence on chromatic adaptation. 513.
- , *s. Hurvich, Leo M.* 513, 1477.
- Jamieson, G.* Measuring the accuracy of magnetic delay units. 209.
- Jampierre, Louis.* Etude des fluctuations relatives de fréquence de deux klystrons reflex stabilisés par divers procédés. 1250.
- Jancel, R. et Kahan, T.* Théorie du couplage des ondes électromagnétiques ordinaire et extraordinaire dans un plasma inhomogène et anisotrope et conditions de réflexion. Applications à l'ionosphère. 888.
- Jander, Gerhart s. Rechmann, H.* 2097.
- *s. Spandau, Hans.* 2096.
- Janeff, W.* Herstellung von Metallnitriden in der Glimmentladung und einige ihrer Eigenschaften. 673.
- Janes, G. S., Gomez, R., Pugh, G. E. and Frisch, D. H.* Gamma-ray scattering by hydrogen. 1174.
- Janes, G. S. s. Gomez, R.* 1174.
- Janes, G. S. s. Pugh, G. E.* 1174.
- , *H. B.* Analysis of within-the-hour fading in 100-to 1,000-Mc transmissions. 1245.
- Janeschitz-Kriegl, H. und Kratky, O.* Abhängigkeit der Röntgen-Kleinwinkelstreuung vom Quellungsmedium bei regenerierter Cellulose. 1633.
- Jangg, G. s. Eipeltauer, E.* 1628, 1629.
- Janin, J. s. Déjardin, G.* 315, 1404.
- Janis, Allen s. Goldberg, Irwin.* 362.
- Jankovic, Zlatko.* Two recurrence formulae for the sums S_{2k} . 2260.
- Solutions of Hermite's and Laguerre's differential equation. 2261.
- Jankus, V. Z.* Electrodissinterration of the deuteron 574.
- Janner, K., Magun, S. und Schopper, E.* Hochspannungsgenerator nach van de Graaff mit flüssigem Ladungstransportmittel. 760.
- Jánossy, L.* Survey of researches in physics in Hungary. I. 181.
- , Foundation of probability calculus. 2261.
- und *Nagy, L.* Verlauf der Rossikurve bei großen Bleidicken. 2044.
- , *s. Aczél, J.* 2261.
- , *s. Adám, A.* 853.
- Jansen, L. and Dawson, J. M.* Intermolecular forces and crystal structures of rare gases. 2418.
- and *Mazur, P.* Theory of molecular polarization in gases. I. Effect of molecular interactions on the polarizability of spherical nonpolar molecules. 99.
- , *s. Mazur, P.* 99.
- Janssen, J. M. L.* Deutung des Verhaltens eines Regelsystems aus dem Abweichungsverhältnis. 2276.
- , *Klaus s. Jellinghaus, Werner.* 1210.
- Jansson, B. s. Hámos, L. von* 1708.
- * *Jante, Alfred.* Kraftfahrzeugmechanik. I. 534.
- Janz, G. J. s. Duncan, N. E.* 2327.
- , *George J.* Thermodynamics of the hydrogenation of benzene. 24.
- Janžekovič, Janez.* Magnetismus einer gleichmäßig elektrisch geladenen, sich drehenden Kugel. 648.
- Jaquero, A.* Etude expérimentale de la perturbation causée par le décentrage du balancier. 1939.
- , *Adrien.* Wissenschaft und Zeitmessung. 1500.
- Jarman, W. R. and Nicholls, R. W.* Vibrational transition probabilities to high quantum numbers for the nitrogen first and second positive band systems. 256.
- *s. Nicholls, R. W.* 431, 1622.
- Jarmie, Nelson.* Excitation function of $O^{16}(t, n)F^{18}$. 579.
- , Mass measurement and excited states of F^{21} . 1766.
- Jarossławzew, N. N.* Beobachtung infraroter Strahlung während der Sonnenfinsternis am 30. Juni 1954 in Taschkent. 1081.
- Jarovsky, M. s. Hée, A.* 948, 1283.
- Jarrell, R. F. and Gurney, J. F.* Jacobert spectrograph and order sorter. 492.
- Jarett, B. A. and Heywood, H.* Comparison of methods for particle size analysis. 2093.
- , *H. S., Sadler, M. S. and Shoolery, J. N.* Nuclear magnetic resonance signals from a tautomeric mixture. 122.
- Jarvis, C. J. D., Husain, A. and Pickup, E.* Identification of cosmic-ray shower particles in emulsions. I. Ionization-scattering method. 616.
- , *s. Husain, A.* 248, 1756.

- Jarvis, C. Mackechnie.* History of electrical engineering. I. Rise of electrical science. 1090.
- , History of electrical engineering. Machinery for the new light. I. 1290.
- , *R. G. s. Craig, D. S.* 65.
- *s. Cross, W. G.* 1595.
- Jaschek, W.* Spektrenprojektor. 2524.
- Jašin, N. M. s. Korostyleva, L. A.* 1805.
- Jasinski, W. s. Prowse, W. A.* 2489.
- Jason, A. C. and Wood, J. L.* Electrical effects of the adsorption of water vapour by anodized aluminium. 1016.
- *s. Cutting, C. L.* 553, 754.
- Jasper, Joseph J. and Kerr, E. Robert.* Orthobaric surface tensions and thermodynamic properties of the liquid surfaces of a series of 1-alkenes, C_6 to C_{16} , and of n-decylcyclopentane, n-decylcyclohexane and n-decylbenzene. 269.
- and *Kring, Elbert V.* Isobaric surface tensions and thermodynamic properties of the surfaces of a series of n-alkanes, C_5 to C_{18} , 1-alkenes, C_6 to C_{16} , and of n-decylcyclopentane, n-decylcyclohexane and n-decylbenzene. 2443.
- and *Wood, T. Donald.* Temperature-interfacial tension studies of some halogenated benzenes against water. 1839.
- , *Kerr, E. Robert and Gregorich, Frederick.* Orthobaric surface tensions and thermodynamic properties of the liquid surfaces of the n-alkanes, C_5 to C_{18} . 269.
- , *Niels.* Messung von kleinen Gleichströmen unter besonderer Berücksichtigung der Technik der atmosphärischen Ionenmessung. 1286.
- Jastram, P. S., Sapp, R. C. and Daunt, J. G.* Angular correlation of gamma radiations from oriented nuclei. 2359.
- *s. Wood, G. T.* 1155, 1159.
- Jastrow, Robert.* Low-energy properties of the nucleon-nucleon interaction. 7.
- A^0 -production in nuclei. 937.
- Many-body problem with strong forces. 1499.
- *s. Block, Martin M.* 1333.
- Jauch, J. M. s. Rohrlich, F.* 538.
- Jardell, Mlle C. s. Rodesch, J.* 875.
- Jauho, Pekka.* Central theorem of statistical mechanics. 2334.
- , Number of artificial nuclear reactions as a random variable. 2362.
- Jauneau, L. s. Hoang, T. F.* 1136, 1388.
- Javan, Ali.* Effects of the bending mode of vibration on the hyperfine structure of ICN. 2060.
- and *Engelbrecht, A.* Microwave absorption spectra of MnO_3F and ReO_3Cl . 785.
- Jaynes, E. T. s. Hornig, A. W.* 1847.
- Jech, Čestmír.* Veränderungen der Oberflächeneigenschaften durch α -Bestrahlung. 2434.
- Jefferies, J. T.* Diffusion of radiation from a point or a line source in an infinite medium. 686.
- Radiative transfer in two dimensions. 1463.
- High temperature excitation of helium. 2051.
- Radiative transfer with central sources of non-uniform directional intensity. 2529.
- Jeffree, H.* Wide range schlieren system. 1462.
- Jeffreys, Harold.* Origin of the earth. 2237.
- , *Sir. Harold.* Use of Stokes's formula the adjustment of surveys. 1084.
- Jeffries, C. D. s. Dobrowski, W.* 2107.
- *s. Jones, R. V.* 1212.
- *s. Sogo, P. B.* 1533, 2106.
- , *T. O. and Owen, M. E.* Tritium monitor. 2344.
- Jefimenko, Oleg s. Ch'en, Shang-Yi.* 1818.
- Jehle, Herbert, Yos, J. M. and Bade, W. L.* Specific interaction between identical molecule pairs. 628.
- *s. Bade, W. L.* 1491.
- Jekeli, W.* Quantisierung der Strahlungsprozesse am Kerntropfen. 1930.
- Jelly, J. V.* Čerenkov radiation and its applications. 36.
- and *Galbraith, W.* Light pulses from the night sky and Čerenkov radiation. II. 886.
- *s. Barclay, F. R.* 36.
- *s. Galbraith, W.* 708.
- *Ullinghaus, Werner and Janssen, Klaus.*
- Je* Anfangspermeabilität einiger Eisenwerkstoffe bei mechanischer Beanspruchung. 1210.
- *s. Dahl, Winfried.* 1473.
- *n. C. K. and Lord, N. W.* Color-center *Je* magnite resonance in LiF . 446.
- Jenckel, Ernst und Cossmann, Gerda.* Quellung und Entquellung vernetzter hochmolekularer Stoffe. 2447.

- Jenitschek, P. s. Lihl, F.* 832.
Jenkin, L. R. Relay-operated timer. 906.
Jenkins, A. D. s. Bamford, C. H. 1200.
 —, *F. A. and Speck, D. R.* Phase change on reflection from multilayer films. 1885.
 —, —, Nuclear moments of gadolinium from optical hyperfine structure. 2050.
 — *s. Speck, D. R.* 1808.
 —, *H. B. s. Barr, T. A.* 638.
 —, *William D., Digges, Thomas G. and Johnson, Carl R.* Creep of high-purity nickel. 1268.
Jenner, J. and Thomaes, G. Thermal diffusion in the liquid phase. 111.
Jennings, B., Weddel, J., Alexeff, I. and Hellens, R. L. Scattering of 4.4-Mev neutrons by iron and carbon. 959.
 — *s. Weddell, J. B.* 1595.
 —, *J. C. E. and Pratt, R. G.* Numerical ray tracing in electron lenses. 2535.
 —, *L. D. and Herlin, Melvin A.* Thermodynamic properties of chrome alum. 465.
 —, *R. E. s. Henderson, C.* 1986.
 — *s. Heymann, F. F.* 775.
Jennison, R. C. and DasGupta, M. K. Measurement of the angular diameter of two intense radio sources. I. Radio interferometer using post-detector correlation. 880. II. Diameter and structural measurements of the radio stars Cygnus A and Cassiopeia A. 880.
Jenny, D. A., Loferski, J. J. and Rappaport, P. Photovoltaic effect in GaAs p-n junctions and solar energy conversion. 1652.
 —, *Hans K. s. Arams, Frank, R.* 1247.
Jensch, W. s. Hans, W. 2155.
Jensen, Arthur, S. Discharging an insulator surface by secondary emission without redistribution. 2188.
 —, *E. N. s. Jones, James, T. jr.* 588.
 — *s. Pokm, A. V.* 594, 2384.
 —, *H.* Messungen des Reflexionsvermögens neuer Projektions-Bildwände. 2201.
 —, *Henry.* Formulas for the astronomical correction to the precise levelling. 1083.
 — Superposition of the differential-equations of the geodetic line. 2564.
 —, *J. H. s. Andreasen, A. H. M.* 870.
 —, *J. H. D. s. Haack, O.* 1137.
 —, *J. Hans D. s. Moellering, William.* 1182.
Jensen, P. Walther Bothe. 713.
 —, *Peter †.* 1290.
 —, *Raymond s. Neuzil, Eugène.* 2436.
Jenssen, G. s. Eriksen, V. O. 1979.
Jentschke, W. s. Juweland, A. C. 2034.
 — *s. Zimmerman, E. J.* 417.
 —, *W. K. s. Maxson, D. R.* 944.
Jepinatjewa, A. M. Experimentelle Daten über gebrochene Wellen in Medien mit kleinen Geschwindigkeitsgradienten. 1086.
Jeppesen, Myron A. Raman and fluorescence spectra of allyl diglycol carbonate. 166.
Jeppson, M. R. s. Andrew, A. 1605.
Jerome, C. W. s. Butler, K. H. 2539.
Jerrard, H. G. Holes of small diameter in stainless steel. 338.
 — Examination and calibration of soleil compensators. 2526.
Jesse, William P. and Sadauskis, John. Ionization in pure gases and the average energy to make an ion pair for alpha and beta particles. 975.
 —, — Comparison of the energy to make an ion-pair in various gases for alpha and beta-particles. 1374.
 —, — Ionization by alpha particles in mixtures of gases. 2034.
Jessel, Maurice. Methode générale d'approximation pour résoudre les problèmes de diffraction. 2260.
Jessup, Ralph S. s. Griffel Maurice. 266.
Jester, Malvern H. L. s. Wallace, Roger W. 2036.
Jetter, Evelyn s. Fresco, James. 2009.
 —, *Evelyn S. and Blatz, Hanson.* Film measurement of beta radiation dose. 2227.
Jewell, W. R. Apparatus for measuring internal friction in transversely vibrating metal reeds. 501.
Jeudon, André. Balance électronique ultra-rapide. 2280.
Jha, S. s. Gupta, R. K. 772, 2379.
Jickling, R. M. s. Selby, M. C. 304.
Jillson, D. C. and Sheckler, A. C. Segregation coefficient of As in germanium as a function of crystal growth variables. 1220.
 — *s. Sheckler, A. C.* 1221.
Jimbo, Yasuo s. Nishimura, Genrokuro. 1305.
Jindra, F. Reine ebene Biegung bei einem nichtlinearen Elastizitätsgesetz. 1726.
Jira, Rudolf s. Mönch, Ernst. 112.

- Joannis, M.* Oscillations de relaxation (lampe au néon). 2200.
- Jodra, Luis G.* and *Sugarman, Nathan.* High-energy fission of bismuth. Proton energy dependence. 2019.
- Joerg, Ekkehardt.* Spiralfeder als Antriebsmittel in Federwerken und Uhren. 903.
- Jørgensen, Chr.* *Klixbüll.* Absorption spectra. VII. Systems with three and more f-electrons. 1397.
- Jørsvøe, H.* Equivalent circuits of magnetostrictive transducers. 2301.
- Jogarao, A.* and *Papa, A. R.* Simple a. c. operated electronic relay for a thermostatic water bath. 1302.
- Johannin, Pierre* s. *Johannin-Gilles, Andrée.* 923.
- Johannin-Gilles, Andrée.* Absorption dans l'ultraviolet de Schumann. Etude de la vapeur d'eau et d'eau lourde. 626.
- et *Johannin, Pierre.* Dispositif de mesure de tensions de vapeur. 923.
- , *Andrée Mme.* Variation avec la température de l'absorption de la vapeur d'eau dans l'ultraviolet de Schumann. 438.
- Absorption de la vapeur d'eau dans l'ultraviolet de Schumann. 626.
- Johannsen, H.* Einführung der Feinwaagen- und Feingewichtseichung in Deutschland. 1502.
- Johansen, H. A.* and *May, Sherman.* Split graphite resistor furnace. 1500.
- Johansson, Lars* s. *Ingelstam, Erik.* 514.
- , *Sven A. E.* Yield of photoprotons from some light elements. 55.
- Experiments on the direct photonuclear effect. 406.
- Decay of UX_1 , UX_2 and UZ . 1536.
- Rotational states in Tm^{169} . 1790.
- RaC - RaC' decay. 2361.
- and *Forkman, Bengt.* Fine structure in the photoproton spectrum of oxygen. 2014.
- John, R. M. St.* and *Winans, J. G.* Motion and spectrum of arc cathode spot in a magnetic field. 668.
- , — Motion and spectrum of arc cathode spot in a magnetic field. 1044.
- , *Robert St. s. Zei, Dino.* 1049.
- , *Walter.* Excitation functions for alpha-induced reactions on lead. 1774.
- Johns, Frank R. s. Anderson, Arthur R.* 1950.
- Johns, H. E., Bernier, J. P.* and *Cormack, D. V.* Direct measurement of the energy locally absorbed from a gamma-ray beam. 2397.
- , *Till, J. E.* and *Cormack, D. V.* Electron energy distributions produced by gamma-rays. 1173.
- s. *Bernier, J. P.* 619.
- s. *Bruce, W. R.* 1080.
- s. *Mauchel, G. A.* 1904.
- , *M. W.* and *Nablo, S. V.* Disintegration of Ir^{192} and Ir^{194} . 71.
- , *Chidley, B. C.* and *Williams, I. R.* Radioactive decay of Ga^{72} . 1562.
- Johnson, A. B.* Clipper with automatic mark-space ratio control. 2275.
- , *C. E. s. Ambler, E.* 2008.
- s. *Bishop, G. R.* 237.
- s. *Cacho, C. F. M.* 1140.
- , *C. H.* and *Galonsky A.* $T(d,n)He^4$ reaction, 1—5 Mev. 1373.
- , *Willard, H. B.* and *Bair, J. K.* Total cross section of Li^6 for neutrons. 408.
- s. *Fowler, J. L.* 980.
- s. *Trail, C. C.* 958.
- , *C. M. s. Bedard, F. D.* 436.
- s. *Gallagher, J. J.* 1817.
- , *C. M. P. s. Jones, G. A.* 1361.
- , *Carl R. s. Jenkins, William D.* 1268.
- , *Charles Y.* and *Meadows, Edith B.* Ambient positive ion composition to 219 km by rocket borne spectrometer. 1485.
- , *E. C.* Sinusoidal analysis of nonlinear control systems. 543.
- , *E. O., Olmstead, J.* and *Webster, W. M.* Low-noise grid-controlled thyatron-the tacitron. 1676.
- s. *Hemquist, K. J.* 1442.
- , *E. P.* and *Cornsweet, T. N.* Electroretinal photopic sensitivity curves. 340.
- , *Francis S.* Spectral radiance of the carbon arc from 1900 to 2500 angstroms. 2494.
- , *G. D. s. Ajzenberg, F.* 1795.
- , *H. R.* Backward-wave oscillators. 2517.
- , *J. B.* and *Williams, N. T.* Pressure gauge for the cm range. 905.
- , *John C.* and *Terrell, James R.* Transmission cross sections for water spheres illuminated by infrared radiation. 1886.
- , *John L.* and *Porter, William S.* Reactions $H^3(d,n)\alpha$ and $He^3(d,p)\alpha$. 239.

- Johnson, Julian F.* Zeitfuchs low temperature viscosity bath. 194.
- , *Kenneth A.* Nucleon-antinucleon scattering and vacuum polarization. 600.
- , *K. L.* Surface interaction between elastically loaded bodies under tangential forces. 1507.
- , *Leo J. and Rauch, S. E.* Odd integer magnetic frequency multipliers. 2512.
- , *M. H.* Connection between lunar height changes and lunar currents in the E-layer. 524.
- , *O. E., Johnson, R. G. and Langer, L. M.* Evidence for a O + first excited state in Zr^{90} . 1157.
- , *Peter D. and Williams, Ferd E.* Effect of pressure on the optical absorption of the activator in a luminescent solid. 863.
- , *Philip O. s. Forrester, A. Theodore.* 1052.
- , *R. Curtis s. Rose, Arthur.* 714.
- , *Russel D., Myers, Rollie J. and Gwinn, William D.* Microwave spectrum and dipole moment of ethylenimine. 787.
- , *R. F. s. Webb, L. A.* 1123.
- , *R. G. s. Johnson, O. E.* 1157.
- , *V. A.* Electrical conductivity of liquid tellurium. 1222.
- Thermoelectric power in a semiconductor showing high-temperature degeneracy. 1420.
- , *s. Seidel, G. M.* 129.
- , *William R.* Multiple meson production in emulsions exposed to the bevatron beam. 1357.
- , *s. Chupp, Warren, W.* 1336.
- Johnston, A. R.* Display of logarithmic Langmuir probe characteristics on a cathode-ray oscillograph. 2487.
- , *Alan R. s. Neher, H. V.* 905.
- , *D. F.* Hall constant of graphite. 469.
- Calculation of the density of electron-trapping defects in neutron-irradiated graphite from measurements of the temperature variation of the Hall coefficient. 1800.
- , *Herrick L. s. Hoch, Michael.* 1509.
- , *s. Powers, Robert W.* 2311.
- , *Lawrence H., Hintz, Norton M. and Schulte, Harry J.* Measurement of phase noise in a pre-excited oscillator system. 1517.
- , *Tucker, Edmund B.* 1519.
- , *R. H. W. s. Davies, J. H.* 763.
- , *Russell s. Stair, Ralph.* 1081.
- Johnston, William G.* Effect of plastic deformation on the electrical conductivity of silver bromide. 1435.
- Johnstone, C. W.* Pulse-analyzer design. 222.
- , *s. Koontz, P. G.* 385.
- , *H. J. s. Gillespie, G. R.* 1207.
- Joki, E. G. and Evans, J. E.* Hf and Zr total cross-section measurements. 66.
- , *Miller, L. G. and Evans, J. E.* Total neutron cross sections of Na, K and Rb in the 0.03- to 10-ev region. 1594.
- , *s. Evans, J. E.* 401.
- , *s. Smith, M. S.* 1553.
- Jolibois, Pierre.* Représentation graphique des phénomènes d'électrolyse aqueuse. 2160.
- Exemples de perturbations apportées dans l'électrolyse par l'influence de facteurs supplémentaires. 2161.
- Joliet, Jean-François.* Tensions superficielles et rayons covalents. 112.
- Jona, F., Shirane, G. and Pepinsky, R.* Dielectric, X-ray and optical study of ferroelectric $Cd_2Nb_2O_7$ and related compounds. 1238.
- , — Optical properties and twinning of $PbZrO_3$ single crystals. 1238.
- , *s. Humbel, F.* 481.
- Joncich, M. J. s. Hannah, K. W.* 29.
- Jones, A. Russell.* Weighing pipet to hold liquid samples for dry combustion. 12.
- , *A. Vallance.* Infrared spectrum of the night sky near 10 000 Å. 709.
- Rotation-vibration spectra of diatomic and simple polyatomic molecules with long absorbing paths. VIII. Spectra of trideuteromethylacetylene and diacetylene from 1.2 μ to 0.7 μ . 997.
- Infra-red spectrum of the night sky near 10 000 Å. 1284.
- and *Harrison, A. W.* Rotational temperatures of the auroral N_2^+ bands. 886.
- , *s. Gush, H. P.* 2243.
- , *Claude K.* Highly stable automatic X-ray diffraction apparatus with only one moving part. 791.
- , *C. W.* Elements of an improved linear perturbation theory of steady supersonic flow with axial symmetry. 1949.
- Reducible non-linear differential equations occurring in mechanics. 2260.
- , *D. D. s. Hilbourne, R. A.* 479.
- , *D. S.* Scattering cross section of an obstacle 302.

- Jones, D. S.* Diffraction by a thick semi-infinite plate 2529.
- , *Earle, Seymbur, Edelman and London, Albert.* Long-tube method for field determination of sound-absorption coefficients. 2303.
- , *Ernest A. s. Akers, Lawrence K.* 623.
- , *E. E.* Inductance of two elliptic tubes. 1425.
- , *Frank E. s. Wexler, Arnold.* 2332.
- , *F. Llewellyn and Williams, G. C.* Collisional processes and similarity in high-frequency discharges in helium. 2489.
- , *G. s. Chacheris, J. C.* 2517.
- , *G. A., Phillips, W. R., Johnson, C. M. P. and Wilkinson, D. H.* Properties of nuclei of mass 19. 1361.
- , *G. O. s. Hulbert, J. A.* 746.
- , *H.* Thermoelectric power of monovalent metals. 843.
- , *Sir H. Spencer.* Definition of the second of time. 1720.
- , *J. L. s. Kemp, J. W.* 502.
- , *J. T. jr. and Knipp, J. K.* Hyperfragments. 393.
- , *James T. jr. and Jensen, E. N.* Radiations from cerium-141. 588.
- , *K. W., McEllistrem, M. T., Douglas, R. A., Herring, D. F. and Silverstein, E.* Angular distributions and excitation functions of $C^{12}(d, p)$ reaction. 958.
- , *s. Williamson, R. M.* 1542.
- , *L. W. s. Terwilliger, K. M.* 1328.
- , *Llewellyn H.* Infrared spectra and structure of $LiOH$, $LiOH \cdot H_2O$ and the deuterium species. Remark on fundamental frequency of OH^- . 1008.
- Polarized infrared spectrum of $KAu(CN)_2$; revision and refinement. 1827.
- and *Penneman, Robert A.* Infrared absorption spectra of aqueous HF_2^- , DF_2^- and HF . 1814.
- Infrared absorption studies of aqueous complex ions. I. Cyanide complexes of $Ag(I)$ and $Au(I)$ in aqueous solution and adsorbed on anion resin. 1815.
- , *L. W. and Terwilliger, K. M.* Electromechanical analog for the study of strongfocusing orbits. 1126.
- Small model FFAG betatron. III. Experimental results. 1328.
- , *P. G. s. Naish, J. M.* 348.
- , *R. E. s. Mitra, A. P.* 523.
- , *Royce J. s. Livingston, Robert S.* 388.
- Jones, R. Norman, Sandorfy, Camille et Trucker, D. E.* Structure moléculaire du tétracyclone. 1617.
- , *R. V. and Young, I. R.* Parasitic deflexions in parallel spring movements. 739.
- , *Dobrowolsky, W., Kunkel, W. B. and Jeffries, C. D.* Cyclotron resonance of free electrons in a nitrogen afterglow. 1212.
- , *s. Dobrowolski, W.* 2107.
- , *T. B. s. Dzimirski, J. W.* 2166.
- , *W. M.* Half-life of tritium. 1548.
- Jong, D. de and Endt, P. M.* Angular distribution of long range protons from the $Be^9(d, p)Be^{10}$ reaction. 2012.
- , — and *Simons, L. J. G.* Angular dependence and yield of the $Be^9(d, p)Be^{10}$ and $Be^9(d, t)Be^8$ reactions. 2012.
- , *s. Endt, P. M.* 2012.
- , *C. de.* Frequency counter, Type STM 427. 1015.
- Jongen, H. F. s. Clay, J.* 2402.
- Jongervius, H. M., Valckx, F. P. G. and Endt, P. M.* Angular distributions and yield of the reaction $^{14}N(d, p)^{15}N$. 2363.
- , *s. Endt, P. M.* 2012.
- , *s. Veenstra, P. C.* 1985.
- Jonker, G. H.* Semiconducting properties of mixed crystals with perovskite structure. 2476.
- , *J. L. H.* Angular distribution of the secondary electrons of soot. 2172.
- , *s. Overbeek, A. J. W. M. van.* 34.
- Joos, G.* Jonathan Zenneck 85 Jahre. 1490.
- Jorba, J. P. Perez y s. Bishop, G. R.* 237, 957.
- Jorczak, J. S.* Mechanical properties of polysulphide polymers. 2440.
- Jordan, K. C. s. Eichelberger, J. F.* 1769.
- , *P. Max Born.* 713.
- Integration der kosmologischen Gleichungen. 1083.
- , *R. D. s. Alger, R. S.* 446, 1407.
- , *s. Anderson, T. H.* 2207.
- , *V. L.* System for stereophonic reproduction. 743.
- , *W. C., Burson, S. B. and LeBlanc, J. M.* Decay of $^{91}_{22}Ti^{51}$ (5.8 min). 581.
- , *W. H. s. Trimmer, J. D.* 1988.
- Jorgensen jr., Theodor.* Comparison of proton energy loss by integral and differential experiments. 601.
- Joseph, H. M. s. Kovaszny, L. S. G.* 683.

- Joseph, J.* Multiple photon production from electron pair annihilation. 1130.
- *s. Rohrlich, F.* 1130.
- , *Joachim.* Durchsichtigkeitsmessungen im Meere im ultravioletten Spektralbereich. 2577.
- Durchsichtigkeitsregistrierungen als ozeanographische Untersuchungsmethode. 2577.
- Quantitative Durchsichtigkeitsmessungen im Meere. 2577.
- Untersuchungen über Ober- und Unterlichtmessungen im Meere und über ihren Zusammenhang mit Durchsichtigkeitsmessungen. 2577.
- Messung des vertikalen Extinktionskoeffizienten. 2584.
- Josien, Mlle Marie-Louise et Fuson, Nelson.* Fréquences CH_2 dans la série cyclopentadiène, indène, fluorène, benzofluorènes. 998.
- , *Marie-Louise et Fuson, Nelson.* Analysis of the effect of polar solvents upon ν (NH) of pyrrole. 1620.
- , — Infrared study of the effect of solvent upon ν (NH) in pyrrole. 1620.
- et *Lascombe, Jean.* Influence des solvants sur la vibration de valence $\text{C}=\text{O}$ de l'acétone, l'acétophénone et la cyclohexanone. 623.
- , *Mlle Marie-Louise et Lebas, Mlle Jeanne-Marie.* Etude des dérivés monosubstitués de benzène par spectroscopie infra-rouge. I. Résultats expérimentaux. 1402. II. Analyses des spectrogrammes dans les régions $2800-3200\text{ m}^{-1}$, $1400-166\text{ cm}^{-1}$ et $700-800\text{ cm}^{-1}$. 1402.
- , *Marie-Louise et Saumagne, Pierre.* Etude du spectra infrarouge de l'hydrogène sulfuré, en solution, dans la région de 2500 cm^{-1} . Formation de complexes moléculaires. 2409.
- , *s. Fuson, Nelson.* 624.
- , *Mlle Marie-Louise s. Lebas, Mlle Jeanne-Marie.* 1402.
- Josse, Henri et Enault, Yves.* Mesure de la rigidité diélectrique des huiles isolantes. 676.
- Jossem, E. L. and Parratt, L. G.* Energy levels in metallic potassium. 124.
- Jost, K.-H. s. Krumbiegel, J.* 166.
- *Res s. Newton, Roger G.* 1165.
- Joulé, Ludovic, Carpeni, Georges et Hamann, Mlle Yolande.* Etude des spectres d'absorption UV des solutions aqueuses de pyrocatechine, en fonction des concentrations et du pH. 1403.
- Joussot-Dubien, Jacques, Lemanceau, Bernard et Pacault, Adolphe.* Appareil électronique de mesure des susceptibilités magnétiques. 1844.
- , *J. s. Pacault, A.* 274.
- Jouty, Roger.* Mesure de la variation d'énergie libre d'un métal lors de l'écroutissage. 2542.
- Jouvet, B.* Realistic theory of mesons. 900.
- Jouvin, J. s. Hoang, T. F.* 1136, 1388.
- Jowett, J. K. S. and Evans, G. O.* Study of commercial time lost on transatlantic radio circuits due to disturbed ionospheric conditions. 678.
- Joy, A. S.* Methods and techniques for the determination of specific surface by gas adsorption. 2089.
- Thermal expansion of coal. 2218.
- Judd, B. R.* Magnetic and spectroscopic properties of certain rare-earth double nitrates. 815.
- Structures of the ground multiplets of certain rare-earth ions. 1182.
- , *David L.* Theoretical study of relativistic constant frequency cyclotrons. 1752.
- , *Deane B.* Progress report by Optical Society of America Committee on uniform color scales. 357.
- Judek, B. and Pickup, E.* Identification of cosmic-ray shower particles in emulsions. II. Range-scattering method. 616.
- Judge, K. and Luckey, G. W.* Modified Bodenstein valve for use with corrosive gases. 904.
- Judish, J. s. Galonsky, A.* 1380.
- , *J. P. s. Galonsky, A.* 1596.
- Judson, C. M., Francel, R. J. and Weicksel, J. A.* s-triazine. IV. Mass spectrum. 1187.
- Juillerat, Rémy.* Tubes électroniques dans le problème des la télévision en couleurs. 1672.
- Julian, A. s. Feld, B. T.* 398.
- Jull, G. W. s. Gabor, D.* 1180.
- Jumau, L.* Accumulateurs électriques d'après les brevets récents. 2486.
- Jumpertz, E. A.* Elektronendichteverteilung in der Zinkblende. 257.
- Jung, H.* Berechnung der Knicklasten. 918.

Jung, H. Anwendung der Hill'schen Minimalbedingung in der Plastizitätstheorie. 1727.

—, *Hans.* Anwendung der Fouriertransformation in der Plattenstatik. 371.

—, *J. J. and Bockelman, C. K.* Energy levels of Belo. 68.

— *s. Cüer, P.* 74, 771.

—, *K. s. Böhnecke, G.* 2257.

—, *Karl.* Dichtebestimmung nach dem Nettleton-Verfahren. 2237.

Junkes, J. and Salpeter, E. W. Effektive Linienbreiten in der Spektralphotometrie. 493.

—, — Ungewöhnliche Verdopplung von Spektrallinien bei synchroner Schwingung der Prismen mit den Lichtimpulsen. 2523.

Jura, George s. Haller, Wolfgang. 997.

Juretschke, H. J. Freedman, S. F. and Epstein, S. Galvanomagnetic effects in single crystals of antimony. 2112.

Jurić, Mira K. Elastic scattering of alpha-Po particles on hydrogen. 84.

— Angular distribution of disintegration products from the $O^{16}(d,p)O^{17}$, $Be^9(d,p)Be^{10}$, and $Be^9(d,t)Be^8$ reactions. 949.

Jurmain, J. H. Multiple matrix analysis on the direct-reading spectrometer. 504.

Just, Kurt. Feldgleichungen zur Jordanschen Gravitations-Theorie. 2.

— Planetenbewegung bei veränderlicher Gravitationszahl. 2.

— Kosmologie mit veränderlicher Gravitationszahl 2.

— Superpotentiale in der erweiterten Gravitationstheorie. 714.

— Jordansche Kosmologie mit neuer Feldgleichungen. 881.

— Frage der Endlichkeit des Weltalls. 881.

— Hertzscher Dipol im expandierenden Raum. 882.

— Gravitationstheorie und Periheldrehung. 1293.

— Drehwaage von Eötvös bei veränderlicher Gravitationszahl. 1293.

Justi, E. Probleme und Wege der zukünftigen Energieversorgung der Menschheit. 893.

Juve, A. E. s. Craig, David. 456.

Juweland, A. C. and Jentschke, W. Polarization of 5.3 Mev protons elastically scattered from helium. 2034.

Juziss, A. P. s. Zjunaitiss, G. K. 993.

K

Kaczer, Jan. Method for investigating the domain structure of ferromagnetics. 1421.

Kadena, M. s. Ishikawa, G. 2575.

Kadomtzeff, Mlle Irène. Sélectivité des résines échangeuses d'ions. 2326.

Källén, G. and Pauli, W. Mathematical structure of T. D. Lee's model of a renormalizable field theory. 2267.

—, *Gunnar.* Non perturbation theory approach to renormalization technique. 2268.

Kämmerer, Hermann. Kinetik der Polykondensation von Phenolalkoholen. 449.

— Polykondensation des p-Kresoldialkohols. 449.

— Katalytische Einflüsse bei der Polykondensation des p-Kresoldialkohols. 450.

—, *W. und Kortum, H.* Oprema, die programmgesteuerte Zwilling-Rechenanlage des VEB Carl Zeiß Jena. 714.

Kaempffer, F. A. Model of elementary particles. 900.

— Principle of phase invariance. 1297.

— Elementary particles as self-maintained excitations. 1992.

Kändler, G. Einfluß der Wetterlage auf die Salzgehaltsschichtung im Übergangsgebiet zwischen Nord- und Ostsee. 2578.

Känzig, Werner and Ueta, Masayasu. Generation of electron traps by plastic flow. 822.

— *s. Ueta, Masayasu.* 497.

Kaeppler, H. J. Bedeutung der heutigen physikalischen, chemischen und aeronautischen Forschung für die Probleme der kernchemischen Strahltriebwerke. 739.

— Transport von Translationsenergie bei Kurzzeitvorgängen. 1118.

Käufer, Helmut and Scheibe, Günther. Spektrographische Untersuchung eines monomolekularen gespreiteten Farbstoff-Films. 114.

Kajalas, J. A. s. Green, Mino. 2128.

Kagawa, Ikuni s. Osawa, Fumio. 454.

Kageyama, Seizaburo. Intensities of γ -rays of RaC . 2362.

—, *Nishimura, Kazuaki and Onai, Yoshio.* Straggling of fast electron. 1170.

—, — Energy loss of fast electron. 2394.

- Kahan, T. s. Jancel, R. 888.
- , Théo. Methode variationnelle dans les problèmes de diffraction et de diffusion des ondes brogliennes. 361.
- Kahl, G. D. and Bennett, F. D. Experimental verification of source size theory for the Mach-Zehnder interferometer. 157.
- Kahle, H. G. Analyse der Spektren- und Zustände einiger seltener Erden in monoklinen Chlorid-Einkristallen. I. Holmium-Chlorid $\text{HoCl}_3 \cdot 6\text{H}_2\text{O}$. II. Erbium-Chlorid $\text{ErCl}_3 \cdot 6\text{H}_2\text{O}$. 1609.
- Kahn, A. s. McDonald, C. C. 1685.
- , A. H. Theory of the infrared absorption of carriers in germanium and silicon. 471.
- , B. and Lyon, W. S. Decay of Y^{91} . 955.
- , Bernd s. Lyon, W. S. 1557.
- , David s. Groetzinger, Gerhart. 125.
- , F. D. Correction of observational data for instrumental band width. 542.
- Basic approximation in the theory of the phase contrast microscope. 1459.
- , Herman. Random sampling (Monte Carlo) techniques in neutron attenuation problems. I. II. 244.
- , Milton, Freedman, Arthur J. and Shultz, C. G. Distillation of carrier-free iodine-131 activity. 579.
- Kahnt, F. W., Neher, R. und Wettstein, A. Umwandlung von radioaktivem Cortexon in Aldosteron durch Nebennieren-Enzyme. 873.
- Kaibe, Yozo s. Mataga, Noboru. 1257.
- Kainer, H., Bijl, D. and Rose-Innes, A. C. Paramagnetic resonance in some molecular compounds; class of biradicals. 276.
- Kainuma, Yoshiro. Excess and defect Kikuchi-bands. 2416.
- Kaischew, R. und Mutafschiew, B. Elektrolytische Keimbildung auf kugelförmigen Pt-Einkristallektroden. 2160.
- Kaiser, Heinz. Strömungsverhältnisse im Bergland. 2581.
- , H. F. Microtron maximum particle energy. 1327.
- Microtron injector for electron synchrotrons. 1327.
- , R. Mechanische Eingangsimpedanzen von Tonabnehmern. 2304.
- s. Tamm, K. 1956.
- , Rudolf. Dublett bei $13,8 \mu$ im Ultrarot-Spektrum des Polyäthylens. 1839.
- Kaiser, T. R. and Bullough, K. Radio echoes from aurorae. 2241.
- s. Browne, I. C. 1081.
- , W. and Fan, H. Y. Infrared absorption of indium antimonide. 1034.
- , Keck, P. H. and Lange, C. F. Infrared absorption and oxygen content in silicon and germanium. 1652.
- Kakinoki, Jiro and Komura, Yukitomo. Intensity of X-ray diffraction by a one-dimensionally disordered crystal. II. General derivation in the case of the correlation range $s \geq 2$. III. close-packed structure. 1001.
- Intensity of X-ray diffraction by an one-dimensionally disordered crystal. I. General derivation in cases of the „Reichweite“ $S = 0$ and 1. 2416.
- Kakiuchi, Yoshinoba, Shono, Hisao, Komatsu, Hachiro and Kigoshi, Kunihiko. Proton magnetic resonance absorption in hydrogen perchlorate monohydrate and the structure of the oxonium ion. I. 2462.
- Kakudo, Masao, Kasai, P. Nobutami and Watase, Takeo. Crystal structure of silanols and their infrared spectra. 995.
- Kales, M. L. s. Sakiotis, N. G. 1665.
- Kalkstein, M. I. and Hollander, J. M. Chain barium-126-cesium-126. 63.
- s. Hollander, J. M. 580.
- Kallee, Ekkehard und Seybold, Gerhard. ^{131}J -signiertes Insulin III. Verteilung im Rattenorganismus. 2222.
- Kallenbach, W. Anwendungsmöglichkeiten der Schallspektrographie bei akustischen Untersuchungen. 1954.
- Kallenbach, Werner. Problem der Schallübertragung im Lichte der Informationstheorie. 2301.
- Kallman, Frances s. Williams, Robley C. 1902.
- Kallmann, H. s. Broser, I. 1980.
- , Hartmut and Furst, Milton. Fluorescent liquids for scintillation counters. 931.
- — Fluorescence of liquids under gamma bombardment. 1979.
- and Spruch, Grace Marmor. Number of traps and behavior of excited electrons in luminescent materials. 2539.
- , Kramer, Bernard and Mark, Peter. Impedance measurements on CdR crystals. 1863.
- and Perlmutter, Arnold. Infrared stimulation and quenching of photo-

- conductivity in luminescent powders. 292.
- Kallmann* s. *Furst Milton*. 36.
- , *H. E.* Beam-hugging plates for unlimited cathode ray deflection. 852.
- , *H. K.* Physical properties of the atmosphere between ~ 80 km and ~ 250 km. 2250.
- Kalmus, H., Denes, P. and Fry, D. B.* Effect of delayed acoustic feed-back on some non-vocal activities. 1077.
- *Henry P., Cacheris, John C. and Dropkin, Herbert A.* Nonquantized frequency-modulated altimeter. 918.
- Kalnajs, J. s. Abrahams, S. C.* 795.
- Kalos, M. H. and Dalitz, R. H.* Numerical calculation of meson-nucleon scattering. 245.
- — Pion-nucleon scattering calculations in the Tamm-Dancoff theory. 2041.
- , *M. s. Tobocman, W.* 53, 85.
- Kalt, Wallace B. s. Saidel, Leo J.* 2063.
- Kambe, K.* Cohesive energy of noble metals. 1406.
- and *Vleck, J. H. van.* g factors of the 3P terms of atomic oxygen. 621.
- — Theory of the Zeeman effect of atomic oxygen. 621.
- Kamefuchi, S. s. Umezawa, H.* 2269.
- , *Sumusu and Tanaka, Shō.* Jauch field. 1715.
- Kamei, Tohru.* Quadrupole moments of Ta^{181} and Lu^{175} . 1809.
- Kamel, R.* Relaxation of the precipitated copper atoms in the binary alloy AuCu. 2546.
- Kamiya, Yoshiko s. Sekido, Yataro.* 2043.
- Kanke, D. und Rose, H.-J.* Trägerdichte im Plasma und ihre Bestimmung mit der Impuls-Sonde. 1441.
- Kammer, E. W.* Effect of small strains on the electrical resistance of uranium wire. 1852.
- , *Salkovitz, E. I. and Schindler, A. I.* Brillouin zone studies V. Thermoelectric power of dilute magnesium alloys. 1446.
- Kammermaier, H. s. Breiter, M.* 750, 1439.
- Kampa, Elizabeth M. and Boden, Brian P.* Submarine illumination and the twilight movements of a sonic scattering layer. 890.
- Kampen, N. G. van.* Completeness of stationary scattering states. I. 1164.
- Kampen, N. G. van.* Completeness of stationary scattering states. II. 1583.
- Kanagy, Joseph R.* Specific heats of collagen and leather. 1690.
- Kanai, Kiyoshi.* Existence of the M_2 waves in actual seismic disturbance. 356.
- Effect of solid viscosity of surface layer on the earthquake movements. 356.
- M_2 -waves (Sezawa-waves). 356.
- Relation between the nature of surface layer and the amplitudes of earthquake motions. I. II. 2565.
- Examinations of the assumption concerning mechanism of earthquake origin through seismograms. 2565.
- and *Yoshizawa, Shizuyo.* Relation between the amplitude of earthquake motions and the nature of surface layer. III. 2565.
- , *Osada Kaio and Yoshizawa, Shizuyo.* Relation between the amplitude and the period of earthquake motion. 2565.
- — Observational study of earthquake motion in the depth of the ground. IV. Relation between the amplitude at ground surface and the period. 2565.
- Kanai, Yasuo.* Galvanomagnetic effects in n -type indium antimonide. 1224.
- Inductive part in the a. c. characteristics of the semi-conductor diodes. 1229.
- Kanal, L. s. Clark, K. C.* 158.
- Kanazawa, Akira and Sugawara, Masao.* Anomalous magnetic moment of nucleon and nucleon isobar. 899.
- — Pion-nucleon scattering and nucleon isobar. 2396.
- , *Hideo.* Theory of plasma oscillations in metals. 1021.
- Radiative interaction of phonon field with electrons. 2269.
- Interaction of electrons with lattice vibrations. 2420.
- Kanazawa, Taduo s. Yamaguchi, Jiro.* 2136.
- Kanda, Eizo s. Sugawara, Tadashi.* 2461.
- Kanda, Teinosuke.* Precise measurement of the F^{19} magnetic moment. 2358.
- s. *Hoh, Junkichi.* 2462.
- s. *Masuda, Yoshika.* 2462.
- s. *Sugawara, Tadasjhi.* 2461.
- Kane, J. A. s. Fields, T. H.* 563.
- s. *Sutton, R. B.* 417.

- Kaneko, Shin-ichi. Calibration measurement of multiple scattering of slow μ -mesons by the constant Sagitta method. 1747.
- , Kubozoe, Tadayoshi and Takahata, Masaomi. Frequency of slow cosmic-ray μ -mesons stopped in the photographic emulsions at 23 m. w. e. underground. 939.
- , Shobu s. Kihara, Taro. 2315.
- Kangro, W. und Weingärtner, Fr. Elektrochemie des Indiums. 832.
- Kanner, H. s. Bay, Z. 1791.
- Kanno, Takuji s. Oka, Yoshinaga. 1936.
- Kanô, Kenzi und Naya, Shigeo. Antiferromagnetism. 2457.
- Kansky, Evgen. Eigenschaften der Antimon-Cäsium-Photokathode. 1663.
- Kanter, H. Dimensionierung von Ferroxcube-Topfkernen. 2453.
- Kanval, R. P. Vibration of an elliptic cylinder and a flat plate in a viscous fluid. 1104.
- Kanzaki, Chikashi s. Yoshimatsu, Seiichi. 2478.
- , H. Plasticity of silver bromide. 1307.
- Kao, L. P. and Katz, E. Theory of the anisotropy of magnetoresistance for single crystals. 1026.
- , S.K. and Clark, A. F. p-p scattering in nuclear emulsions. 1167.
- Kaplan, J. s. Brook, M. 623.
- , J. I. Calculation of a spin resonance equation. 647.
- Spin resonance in metals as altered by the Overhauser effect. 1848.
- s. Garstens, M. A. 1423.
- , Jerome I. Thermomagnetic anisotropy. 1853.
- , Selig N. s. Millburn, George P. 1542.
- Kaplan, M. F., Klarmann, J. and Yekutieli, G. β Decay of K-mesons and the classification of K-meson decays. 1756.
- , Noon, J. H. and Ritson, D. M. Interactions of heavy primaries of the cosmic radiation. 987.
- , Crussard, J., Klarmann, J. and Noon, J. Observations on unstable particles in photographic emulsion. 44.
- s. Cester, R. 1976.
- s. Crussard, J. 394.
- s. Klarmann, J. 1333.
- s. Koshiba, M. 989. 1390.
- s. Noon, J. H. 56, 616, 987.
- s. Yekutieli, G. 1333. 1521.
- Kapp, Reginald O. Development of the universe. 2237.
- Kappanna, A. N. Kinetics of the reaction between persulphate and formate ions. 2326.
- Karandikar, R. V. Search for discontinuities in the brightness of the twilight-sky. 708.
- , Luminance of the sun. 1907.
- Karanikolow, Christo. ONSAGERSche phänomenologischen Beziehungen. 218.
- Karbowiak, A. E. Theory of imperfect waveguides: effect of wall impedance. 303.
- Karkhanavala, M. D. Universal X-ray camera stand. 1473.
- Karle, I. L. s. Swick, D. A. 2054.
- , J. Electron scattering and internal rotation. 2402.
- s. Swick, D. A. 2054.
- Karlson, E. Eigenvalues of the charge operator. 721.
- Karlsson, N. s. Hägg, G. 2065.
- Karnatak, R. C. and Varshni, Y. P. Screening constants in X-ray spectra. 1804.
- Karnaugh, M. Map method for synthesis of logic circuits. 357.
- Karp, Arthur. Traveling-wave tube experiments at millimeter wavelengths with a new, easily built, space harmonic circuit. 1674.
- Karpiskova, Kveta s. Bohun, Antonin. 149.
- Karplus, Robert and Ruderman, Malvin A. Applications of causality to scattering. 974.
- s. Case, K. M. 1995.
- s. Goebel, Charles J. 1585.
- s. Ruderman, Malvin. 2351.
- , W. J. Use of electronic analogue computers with resistance network analogues. 358.
- Karpovich, John. Investigation of rotational isomers with ultrasound. 1735.
- Karrer, H. Comparison of normal and infected mouse lung by means of the electron microscope. 2222.
- Kartha, Gopinath. Structure of barium chlorate monohydrate, $\text{Ba}(\text{ClO}_3)_2 \cdot \text{H}_2\text{O}$. 1005.
- Karuss, Je. W und Passetschnik, I. I. Natur elastischer Wellen, die in natürlichem Untergrund von einer harmonischen Quelle erregt werden. 1086.
- Karzmark, C. J. s. Kim, Y. B. 43.
- s. Thompson, R. W. 43.

- Kasahara, Keichi*. Experimental studies on the mechanism of generation of elastic waves. I. II. III. 2567.
- Kasai, P. Nobutami s. Kakudo, Masao*. 995.
- Kaschluhn, F.* Statistik eines Fermi-Dirac-Gases in Wechselwirkung mit einem Bose-Einstein-Gas. 2333.
- Approximatives Variationsprinzip in der Quantenstatistik. 2334.
- Kash, S. W. and Woods, D. C.* Measurement of the transport mean free path of thermal neutrons in D_2O by a boron poisoning method. 85.
- Kasper, J. S. and Roberts, W. B.* Antiferromagnetic structure of α -manganese and a magnetic structure study of β -manganese. 2104.
- Kasper, John S. and Christ, C. L.* Structure type for metallic oxides of formula A_5BO_8 . 795.
- Kasper, K. s. Förster, Th.* 1069.
- Kassecker, T. und Urban, P.* Berechnung von Kernmomenten nach dem Schalenmodell. 763.
- Kassner, D. s. Piccioni, O.* 1518.
- , *J. L. s. Hamme, H. W.* 1230.
- , *R. R. s. Courant, E. D.* 1752.
- , *s. Raka, E. C.* 1752.
- , *s. Spiro, J.* 1752.
- Kast, W. s. Hosemann, R.* 2259.
- , *Y. s. Demon, L.* 2564.
- Kastning, B., Holleck, L. und Melkonian, G. A.* Kinetische Untersuchungen über die Bildung und den Zerfall des Benzylidenanilins. 1114.
- , *B. s. Holleck, L.* 1231.
- Kastler, Alfred.* Possibilité d'orienter les noyaux atomiques dans les métaux par l'absorption paramagnétique des ultrasons. 236.
- , *s. Brossel, Jean.* 250.
- , *J. s. Ghosh, A.* 2362.
- Kasuya, Tadao.* Theory of thermal conductivity of monovalent metals. 2465.
- Katayama, Mikio.* Temperature dependence of the molecular polarization of ammonia. 2409.
- , *Yasuhisa.* Theory of the interactions with higher derivatives and its application to the non-local interaction. 1296.
- Katchalsky, A. and Eisenberg, H.* Molecular weight of polyacrylic and polymethacrylic acid. 453.
- Katcoff, Seymour.* Radiations from long-lived Tc^{98} . 1547.
- Kato, I. s. Kato, Y.* 2239.
- Kato, Norio.* Integrated reflection power and transmission power of X-rays for absorbing perfect crystal (Laue case). 2415.
- , *Susumu.* Solar Lyman beta radiation and the ionosphere. 2248.
- Katô, Toshio s. Ishiguro, Kôzô.* 2449.
- Kato, Y., Takagi, A. and Kato, I.* Reverse remanent magnetism of dyke of basaltic andesite. 2239.
- , *Yoshio and Utashiro, Shinkichi.* Investigation of the magnetic storm by the induction magnetograph. 2569.
- Kats, A. and Stevels, J. M.* Effect of U. V. and X-ray radiation on silicate glasses, fused silica and quartz crystals. 1824.
- , *s. Stevels, J. M.* 1824.
- Katsumori, Hiroshi.* Effect of the Pauli moment on the γ -decay of neutral meson. 940.
- Katz, E.* Photographic order principle. 1466.
- , *s. Kao, L. P.* 1026.
- , *s. Schamp, H. W. jr.* 2426.
- , *L. s. Chidley, B. G.* 1543.
- , *s. Pederson, E. C. B.* 558.
- Katz, Milton S. and Schwartz, Ira.* Pulfrich effect. 1475.
- , *s. Morris, A.* 1476.
- , *Samuel.* Deformation zones produced by explosive shocks in ferrous metals. 1732.
- , *Sidney, s. Casassa, Edward F.* 1199.
- Katzin, Leonard I.* Absorption spectrum iodine in oxygenated solvents and the dissociation of iodine water. 438.
- , Possible f-shell covalency in the actinide elements. 2048.
- Katzman, J. s. Rose, D. C.* 249, 2401.
- , *John.* Directional intensity of cosmic rays. 616.
- Kauderer, Hans.* Kinetische Bestimmung von Kennlinie und Dämpfung schwingender Systeme. 1304.
- Kaufer, G. E.* Versatile pulse shaper. 1667.
- Kaufman, H. S. and Muthana, M. S.* Molecular weight of polytrifluorochloroethylene by high temperature osmometry. 453.
- , *Irving s. Coleman, Paul D.* 993.
- Kaufmann, Werner.* Einfluß langer Steuerleitungen auf die Wirkungsweise der Schütze. 2504.

- Kauzmann, Walter s. Busing, William, R. 2144.
- Kavanagh, R. W., Mills, W. R. and Sherr, R. Isomerism in Al²⁶. 582.
- s. Barnes, C. A. 1795.
- s. Sherr, R. 1154.
- Kawada, Tomoyosi. Discontinuous elongation of aluminium crystals. IV. 2543.
- Kawaguchi, Masaaki s. Hayakawa, Satio. 768.
- Kawaguti, Mitutosi. Critical Reynolds number for the flow past a sphere. 2291.
- Discontinuous flow past a circular cylinder. 2292.
- Numerical solution of the Navier-Stokes equations for the flow around a circular cylinder at Reynolds number 40. 2292.
- Kawai, Mitsuji s. Hayakawa, Satio. 2010.
- Kawai, N. Instability of natural remanent magnetism of rocks. 2240.
- Kawaji, Shinji s. Kobayashi, Akio. 1261.
- Kawakubo, S. s. Hasegawa, Y. 869.
- Kawamura, Hazimu and Onuki, Masami. Pulse size distribution of the pre-breakdown noise. 2490.
- Statistical time lag and electron avalanche in dielectric breakdown of mica. II. 2498.
- , Ohkura, Hiroshi and Kikuchi, Takeo. Statistical time lag of the dielectric breakdown of mica, glass and KCl. 2170.
- , Mitsuhiro s. Hayashi, Takeo. 1781.
- , Shoji s. Noga, Kin-ichi. 2500.
- Kawano, Minoru. Effect of static magnetic field on the point discharge current. 2492.
- Sudden changes in the atmospheric electric phenomena accompanying lightning discharges. I. 2576.
- Kawasaki, Koji. Variation of surface conduction current of solid by the adsorption of water vapour and its phase transition of adsorbed layer. 2471.
- Kawata, Suekichi and Itami, Akira. Remote measurement of density of a liquid of variable surface level. 13.
- Kay, Alan F. Roots of transcendental equations. 1707.
- , H. F. Electrostriction. 2495.
- , I. and Moses, H. E. Determination of the scattering potential from the spectral measure function. I. Continuous spectrum. 599.
- Kay, I. and Moses, H. E. Determination of the scattering potential from the spectral weight function. 1166.
- — Determination of the scattering potential from the spectral measure function. II. Point eigenvalues and proper eigenfunctions. 1495.
- — III. Calculation of the scattering potential from the scattering operator for the one-dimensional Schrödinger equation. 1496.
- , R. H. s. Hobson, A. 2275.
- , R. L. s. Gordon, A. R. 2155.
- Kayas, Georges. Transport sur verre et traitement des émulsion nucléaires sans support. 226.
- , G. s. Crussard, J. 2000.
- s. Hoang, T. F. 1136.
- s. Orkin-Lecourtois, A. 1121.
- Kaye, S. s. Waddell, J. M. 826.
- , Walbur s. Peck, Virgil. 2083.
- , Wilbur. Near-infrared spectroscopy. II. Instrumentation and technique. 1677.
- Kazan, B. s. Nicoll, F. H. 1688, 2134.
- Kazarinov, Ju. M. s. Dželepov, V. P. 1798.
- Keane, A. Gravitational compression of an elastic sphere. 1696.
- Kear, F. G. and Preston, J. G. Control of vertical radiation patterns of TV transmitting antennas. 1452.
- Keating, D. T. X-ray measurements of pile-irradiated LiF. 611.
- , David T. X-ray measurements on low-temperature neutron-irradiated graphite. 1176.
- Kebele, Victor s. Summerfield, Martin. 1946, 1965.
- Keck, Gertrud. Einstellung von Teilchen und Lösungen im Feld stehender Ultraschallwellen. 2305.
- s. Hauer, Fritz. 2305.
- , J. C. and Tollestrup, A. V. Photodissociation of the deuteron from 150 to 450 Mev. 1543.
- and Symthe, W. R. II. High-energy photodisintegration of the deuteron. Results. 575.
- s. Bingham, H. H. 1343.
- s. Tollestrup, A. V. 575, 1522.
- , P. H., Horn, W. van, Soled, J. and MacDonald, A. Floating zone recrystallization of silicon. 823.

- Keck, Levin, S. Benedict, Broder, J. and Lieberman, R. Crystal growth by the tip fusion method. 1625.
— s. Kaiser, W. 1652.
- Kedesky, H. s. Matore, H. F. 2121.
- Keech, G. L. and Gulbis, F. Anomalies in the absorption of cosmic rays in lead. 1801.
- Keefe, D. s. Davies, J. H. 763.
— s. Friedlander, M. W. 2350, 2353.
- Keegan, T. J. X-ray pulses from the betatron. 389.
- Keeler, J. H. Zirconium. 1268.
- Keenan, T. A. and James, H. M. Orientational transitions in CD_4 . 1194.
- Keene, J. P. Absolute method for measuring the activity of radioactive isotopes. 2343.
- Keep, D. N. Frequency-modulation radar for use in the mercantile marine. 2515.
- Keepin, G. R. jr. s. Koontz, P. G. 385.
- Keesom, P. H. and Pearlman, N. Atomic heat of bismuth between 10 and 4°K . 25.
— Heat capacity measurements on pure and slightly reduced rutile (TiO_2) at very low temperatures. 1110.
— Atomic heat of graphite between 1 and 20°K . 1316.
— s. Pearlman, N. 1110.
- Keet, W. de V. s. Lockner, J. P. A. 693.
- Kehoe, R. B., Newman, R. C. and Pashley, D. W. Automatic recording of electron diffraction patterns applied to the study of evaporated copper layers. 808.
- Keiffer, David G. and Parzen, George. Energy distribution at large angles of high-energy electrons in bremsstrahlung. 2394.
- Keii, Tominaga. Statistical derivation of the B. E. T. equation. 2331.
- Keil, A. Weichlote für Sonderzwecke. 2215.
- , Albert. Leitfähigkeitsmessungen an galvanisch erzeugten Metallfolien. 1841.
- Nachweis von Oxydationsvorgängen in der Funkenstrecke. 2211.
- , K. Anteil Deutschlands an der Entwicklung der internationalen Zusammenarbeit auf meteorologischem Gebiet. 2580.
- Wetterdienstbibliothek als Archiv-Fachbibliothek im Rahmen der deutschen Bibliotheken. 2580.
- Keiller, C. Q. Dielectric test cell for bituminous material. 146.
- Keim, C. P. Enriched stable isotopes: Five years of production and use. 1768.
- Keister, G. L., Lee, E. B. and Schmidt, F. H. Radioactive decay of Cs^{134} and $\text{Cs}^{134\text{m}}$. 583.
- , Gleen L. Internal conversion coefficients in decay of Mn^{52} . 1576.
- Keitel, G. H. Certain mode solutions of forward scattering by meteor trails. 2562.
- Keith, H. D. X-ray study in high vacuum of the structure of evaporated copper films. 1418.
- Kelbg, G. und Möller, U. Statistik von Mischungen. 2314.
- s. Falkenhagen, H. 210, 826, 1744, 2141.
- Kellenberger, E. Transformations des nucléoides de escherichia coli déclenchés par les rayons X. 875.
- Keller, A. Phase shifts in p-p scattering. 417.
— Meßwandler-Prüfeinrichtung nach dem Differentialverfahren. 2100.
- , Fred L. and Nielsen, Alvin H. High-dispersion measurements on τ_2 of NO_2 at 200°C . 623.
- , J. M. and Koenigsberg, E. Electronic quadrupole-quadrupole interactions in cerium metal. 443.
- , Manfred und Ploke, Martin. Sichtbarmachung von Röntgenbildern mittels einer auf Röntgenstrahlen anprechenden Fernsehaufnahmeröhre. 1080.
- , M. R. s. Murray, R. L. 1126.
- , P. s. Hée, A. 948.
- , William E. PV isotherms of He^3 gas between 1.5 and 3.8°K . 381.
- Pressure-volume isotherms of He^4 below 4.2°K . 549.
- Pressure-volume isotherms of He^3 between 1.5 and 3.8°K . 1111.
- Second virial coefficients of He^3 — He^4 mixtures between 2 and 4°K . 1741.
- s. Kilpatrick, John E. 2315.
- Kelley, John H. Relationship between applications and methods in the spectrochemical determination of aluminium in steel. 504.
- , Wilbur E. Engineering in the atomic age. 936.

- Kellner, L. Spectre de valence C-C d'hydrocarbures substitués et isomères. 254.
- Kelly, A. s. Hirsch, P. B. 1418.
- , Elmer L. s. Pyle, Robert V. 1752.
- , J. C. Thin film abrasion tester. 1842.
- , Patrick, Rigg, Tyson and Weiss, Joseph. Chemical primary processes in the action of ionizing radiations on water: Evidence from experiments with heavy water. 985.
- , R. L. Technique for the study of thin metallic films. 271.
- Kelsch, John J. Electron and light microscopy of film surfaces. 1842.
- Kemmer, N. and Salam, Abdus. Relativistic equation for scattering. 773.
- Kemnitz, Günter. Graphische Verfahren der röntgenographischen Verformungsmessung. 1267.
- Kemp, J. W. and Andermann, Geo. Nonmetallic fluorescent X-ray analysis. 501.
- , Hasler, M. F., Jones, J. L. and Zeitz, Louis. Multichannel instruments for fluorescent X-ray spectroscopy. 502.
- , W. R. G., Klemens, P. G., Sreedhar, A. K. and White, G. K. Thermal and electrical conductivity of silver-palladium and silver-cadmium alloys at low temperatures. 1022.
- Thermal and electrical conductivity of palladium at low temperatures. 1317.
- Kenaga, K. S. s. Stull, D. R. 23.
- Kendrick, N. S. jr., Miller, J. E. and Crawford, G. W. Design of an oven for obtaining the X-ray diffraction patterns of materials with a low-thermal conductivity. 629.
- s. Miller, J. E. 629.
- , W. M. s. Turner, T. E. 434.
- Kennedy, A. J. Creep and recovery property of metals. 15.
- Single crystal extensometer. 373.
- , R. J. s. Miller, William 1682.
- , T. J. s. Wicklatz, J. E. 450.
- , W. L. Anomalous absorption of cosmic rays in lead. 247.
- , William R. s. Dietrich, Jacob E. 230.
- , R. W. s. Anderson, J. D. 559. 1759.
- Kenski, J. s. Fields, T. 2133.
- Kent, Gordon. Space charge waves in inhomogeneous electron beams. 780.
- Kenty, Carl. UV continuum of the Xe HG⁺ molecule. 788.
- Active nitrogen in rare gases. 1000.
- Kenworthy, H. s. Eggen, D. T. 610.
- Keohane, K. W. and Metcalf, W. K. Reduction of scatter in monochromators. 1461.
- Keonjian, E. s. Suran, J. J. 2181.
- , Edward. d-c amplifier employing junction-type transistors. 478.
- Kephart, J. F. s. Hammel, J. E. 1544.
- Kepler, G. E. s. Fretter, W. B. 1134, 1334.
- , R. G. s. Aggson, T. L. 2353.
- Keplinger, O. s. Marvel, C. S. 451.
- Kepp, Richard Kurt und Baewmer, Joachim. Bestrahlung mit wanderndem Strahlenkegel bei der Behandlung bösartiger Tumoren des weiblichen Genitale 345.
- Kereiakes, J. G. X-ray analysis of compressed KCl powder crystals. 798.
- and Krebs, A. T. Beta-ray-excited X-rays. 89.
- Kerlee, D. D., Blair, J. S. and Farwell, G. W. Consistency of nuclear radius determination from elastic scattering of alphas. 1588.
- Kerman, R. O. s. Zimmerman, E. J. 417.
- Kern, B. D. and Cochran, L. W. Gamma rays from proton bombardment of phosphorus. 1371.
- s. Farney, G. K. 410.
- s. Givin, H. H. 413.
- , Werner, Achon, Marco Antonio, Schröder, Gerd und Schulz, Rolf. Endgruppenuntersuchungen und Elementarvorgänge der radikalischen Polymerisation. 1835.
- Kernahan, Jean L. and Sienko, M. J. Residual paramagnetism and the susceptibility of some isoelectronic cobaltamines. 1424.
- Kernan, A. and Cester, R. P-P interactions at 3 Bev. 1796.
- s. Cester, R. 2001.
- Kerner, E. H. Band structure of mixed linear lattices. 1822.
- , Edward H. Electric conductivity of composite media. 649.
- and Logan, Joseph G. Invariant characteristics of one-dimensional binary lattices. 107.
- Kerr, Donald E. and Tubbs, Eldred, F. Transient behavior following breakdown and its relation to afterglow processes. 837.
- , E. Robert s. Jasper, Joseph J. 269.
- , Eugene C. Orthobaric densities of He³ 1.3° K to 3.2° K. 448.

- Kerr, F. J. s. Shain, C. A. 709.
- , J. S. S., Schaffner, J. S. and Suran, J. J. Effect of a transverse electric field on carrier diffusion in the base region of a transistor. 2116.
- , John T., Isenor, Neil R. and Duckworth, Henry E. Masses of the stable zinc isotopes. 947.
- , Taylor, John G. V. and Duckworth, Henry E. Reliability of atomic masses in the chromium-germanium region. 947.
- Kersch, R. und Kulenkampff, H. Spektrum und Richtungsverteilung der Röntgen-Bremsstrahlung einer dünnen Antikathode. 94.
- Kerst, D. W. s. Cole, F. T. 1328.
- s. Scott, M. B. 2015.
- s. Terwilliger, K. M. 1328.
- Kersten, M. Physik der Elementarvorgänge längs der ferromagnetischen Hystereseschleife. 814.
- Wölbung der Blochwand als Elementarvorgang reversibler Magnetisierungsänderungen. 2102.
- Kerth, Leroy and Youtz, Byron L. Elastic and inelastic scattering of 90-Mev neutrons by deuterons. 978.
- , L. T., Stork, D. H., Birge, R. W., Haddock, R. P. and Whitehead, M. N. Production of heavy mesons at the bevatron. 1336.
- , Lorey T. s. Birge, Robert W. 1755.
- Kessler, C. Vorausberechnung optimal abgestimmter Regelkreise. I. Regel-dynamisches Verhalten der Gleichstrommaschine. II. Problem der Rückführung bei elektronischen Regelverstärkern. III. Optimale Einstellung des Reglers nach dem Betragsoptimum. 726.
- , Dan et Maze, Roland. Composante pénétrante secondaire des mésons μ . 2042.
- , D. s. Maze, R. 1172.
- , Dan et Maze, Roland. Interactions électromagnétiques des mésons μ dans les arrangements de compteurs. 1528.
- Keßler, Joachim. Fremderregter Band-generator mit übernormaler Ladungsdichte. 934.
- Kestigian, Michael, Colodny, Paul and Stein, Richard S. Light scattering investigation of the polymolybdates. 1633.
- Ketelaar, J. A. A., Haas, C., Hooge, F. N. and Broekhuijsen, R. Far infrared emission spectrum of flames. Rotational spectrum of OH-radicals and determination of flame temperatures. 2329.
- s. Fahrenfort, J. 1619.
- Kettle, B. H. s. Brosi, A. R. 1565.
- Ketleborough, C. F. Analogue study of the temperature distribution in cooled gas-turbine blades. 1506.
- Keulegan, Garbis H. Hydrodynamic effects of gales on Lake Erie. 1088.
- Keup, W. Zentrifugenfiltration mit hohen Drucken. 2274.
- Keyes, R. W. and Sladek, R. J. Reduction of charge carrier concentration in InSb at 4.2° K by a strong magnetic field. 1653.
- , Robert W. Effect of pressure on the electrical conductivity of InSb. 2129.
- Effects of hydrostatic pressure on the conductivity of InSb. 2129.
- Temperature dependence of the elastoresistance in n-type germanium. 2130.
- R. D. s. Cook, R. H. 904.
- Keys, John E. Parallel-plate transmission line. 680.
- Keywell, Frank. Measurements and collision theory of high vacuum sputtering. 992.
- Khairy, E. M. s. Tourky, A. Riad. 1864.
- Khambátá, S. J. Raman spectrum of magnesium oxide. 2425.
- Khan, N. A. Studies by infrared spectra of the initiation process in autooxidation of methyl linolenate. 1619.
- Khastgir, S. R. and Setty, P. S. V. Observations on the effect of light on silent electrical discharge through iodine vapour. 297.
- Khosla, B. D. and Ramaiah, N. A. Studies of secondary processes of low frequency electric discharge with glass electrodes. 2492.
- , Guur, H. C. and Ramaiah, N. A. Surface dependence of Joshi effect in water vapour under low frequency electric discharge. 1656.
- s. Ramaiah, N. A. 1656, 1867.
- Kibel, J. A. s. Kotschin, N. J. 1705.
- Kieffer, J. s. Dapoigny, J. 1950.
- Kiely, D. G. s. Gebbie, H. A. 842.
- Kienast, G. s. Thiele, H. 2449.

- Kienel, Gerhard.* Zweistoffschichten.
V. Diffusion von Silber in Selen. 807.
- Kienle, H.* IX. Generalversammlung der Internationalen Astronomischen Union in Dublin. 535.
- , *Hans*, 60 Jahre. 182.
- , Kosmogonie. 1484.
- Kiepenheuer, K. O.* Beeinflussung des menschlichen Blutserums durch die Sonne. 1478.
- , *Karl-Otto.* Observatorium des Fraunhofer Instituts auf der Insel Capri. 1480.
- Kierstead, Henry A.* Expansion of copper bombarded by 19-Mev deuterons. 986.
- s. *McDonell, William R.* 54.
- Kieser, W.* Kabel. 1291.
- Kiess, Norman H. and Bass, Arnold M.* λ 4050 group of cometary spectra in the acetyleneoxygen flame. 102.
- Kietz, G.* Theoretische Überlegungen zur Möglichkeit maß- und winkelgerechter Röntgendarstellung. 2210.
- Kunihiko, Kigoshi s. Yoshinobi, Kakiuchi.* 2462.
- s. *Sakata, Tamio.* 2133.
- Kihara, Taro and Kaneko, Shobu.* Confirmation of the existence of a helium double-molecule. 2315.
- *Midzuno, Yukio and Shizume, Toshio.* Virial coefficients and intermolecular potential of helium. 2315.
- Kihō, Hiroshi.* Crystallographic aspect of the mechanical twinning in metals. 1626.
- Kikuchi, Chihiro.* Doublet structure in paramagnetic absorption spectra of Mn^{++} in calcite. 1212.
- s. *Matarese, Lawrence M.* 1266.
- Transition from the ground return circuit to the surface waveguide. 2173.
- , *Ken s. Hayakawa, Satio.* 967, 2010.
- s. *Nakasima, Ryuzo.* 2364.
- , *M.* Making germanium single crystals. 2119.
- and *Tariu, Y.* Step and oscillation phenomena in the collector of A-type transistors. 1229.
- Long period effects in germanium crystal rectifiers. 1040.
- Problems in the understanding of the thermal conversion phenomena in Ge. 2471.
- and *Tarui, Yasuo.* Transient phenomena in the backward direction of germanium crystal rectifiers. 1040.
- Kikuchi, Chihiro. Tarui, Yasuo and Denda, Seiichi.* Mechanisms underlying the current gain in A-type transistors. I. β -process. 1229.
- s. *Denda, Seiichi.* 1027.
- , *Ryoichi.* Gaussian functions in molecular integrals. 1300.
- , *Takeo s. Kawamura, Hazimu.* 2170.
- s. *Tomura, Masao.* 2475.
- Kikuta, Takashi.* Convergence of iterative methods. 2260.
- Nucleon isobars and nuclear forces in low energy region. 2360.
- *Yamada, Masami and Morita, Masato.* Effect of hard core on the binding energies of H^3 and H^3 . 1532.
- Kilmister, C. W. s. Bastin, E. W.* 1492.
- Kilpatrick, E. L.* Technique for sweep frequency polarization measurements at low frequencies. 521.
- , *John E. Hammel, Edward F. and Mapother, Dillon.* Superconductivity of uranium. 1647.
- *Keller, William E. Hammel, Edward F. and Metropolis, Nicholas.* Second virial coefficients of He^3 and He^4 . 2315.
- Kim, Y. B. Burwell, J. R., Huggett, R. W. and Thompson, R. W.* Magnetic cloud chamber study of V^+ events. 394.
- — — Evidence for charge asymmetry of the V^+ particle. 938.
- — — Evidence for charge asymmetry of V^+ -particles. 1520.
- *Cohn, H. O., Karzmark, C. J. and Thompson, R. W.* Magnetic cloud chamber observation of V-particles. I. Charged V-particles. 43.
- Energy distribution of neutral mesons produced in cosmic-ray stars. 2400.
- Kimmel, Heinz.* Abbildungstreue von Lackabdrucken. 1469.
- Kimoto, Kazuo.* Study on the intensity anomaly of electron diffraction powder patterns from minute silver crystallites. 2417.
- Kimpara, Atushi.* Wave form of atmospheres in day time. 2576.
- Kimura, Kiichi, Ishiwari, Ryutaro Yuasa, Kazunori Yamashita, Sukeaki Miyake, Kozo and Kimura, Sadao.* Range-energy relation and ionization-energy relation for alphy-particles in air. 2388.
- , *R. Hotta, S., Fujii, T., Tanabe, I. Hashimoto, Y. Inoue, T. and Fujita,*

- T.* Uptake of radioactive phosphorus into phosphorus compounds in the brains of virus-infected mice. 1273.
- Kimura, Sadao* s. *Kimura, Kiichi*. 2388.
- , *Toshiei*. Photon self-energy problem and microscopic space-time structure. 2270.
- Kinase, Wataru*. Interactions among ions of a BaTiO_3 crystal and on its 180° and 90° type domain boundaries. 2170.
- Kinchin, G. H.* and *Pease, R. S.* Mechanism of the irradiation disordering of alloys. 1387.
- — Displacement of atoms in solids by radiation. 1800.
- Kind, A.* Low energy nuclear mechanics and the independent particle model. 722.
- Kinderman, Edwin M.* s. *Lefebvre, Harlan W.* 2032.
- King, Allen L.* Rheological problem. 2224.
- , *Bernard G. s. Scheibe, Elmer H.* 1055.
- , *Burnham W.* Ceramic-coated metals for industry. 2549.
- , *D. T.* Multiplicity distribution of $O + N_p$ stars. 1356.
- and *Block, M. M.* Nuclear absorption of a fast charged hyperon. 1132.
- — Pairs formed by bremsstrahlung of great energy. I. Experimental. 1330
- *Wada, W.* and *Block, M. M.* Direct creating of electron pairs by electrons of great energy. I. Experimental observations. 42.
- s. *Block, M. M.* 42, 936, 937, 1331.
- s. *Hooper, J. E.* 1989.
- s. *Wada, W.* 42.
- , *Gilbert W.* Information storage. 2534.
- , *Blanton, Elaine H.* and *Frawley, Joanna.* Spectroscopy from the point of view of communication theory. IV. Automatic recording of infrared spectra on punched cards. 1063.
- , *Ivan.* Automatic triplet design with the Harvard mark I calculator. 2200.
- , *Robert B. s. Floyd, Acey L.* 102.
- , *R. J.* Variation in contrast of photographic emulsions in the ultra-violet. 2534.
- , *R. W.* Table of total beta-disintegration energies. 772.
- Hole-particle relations and j-j coupling. 1139.
- Supermultiplets and spin dependent forces. 1577.
- King, Sing-yui.* Interruption of a. c. circuits. 1054.
- , *W. C. s. Gallagher, J. J.* 1817.
- Kingery, W. D. s. Halden, F. A.* 1839.
- Kingsbury, R. F.* Oscillator strengths for transitions between $2p^33p$ and $2p^33s$ in oxygen I, including configuration interaction. 2048.
- Kingston, R. H.* and *McWhorter, A. L.* Relaxation effects in field-induced surface conductance. 1221.
- s. *Bernstein, H.* 1217.
- Kington, G. L. s. Garden, Linda A.* 926.
- , *J. D. Bair, J. K., Cohn, Hans O.* and *Willard, H. B.* Proton-neutron threshold measurements. 1540.
- s. *Bair, J. K.* 51, 1563.
- s. *Willard, H. B.* 980, 2376.
- Kinney, Jo Ann Smith.* Sensitivity of the eye to spectral radiation at scotopic and mesopic intensity levels. 1475.
- Kinosita, Koreo.* Glass-cleaning procedures by static friction measurement. 2428.
- Numerical evaluation of the intensity curve of a multiple-beam Fizeau fringe. 2528.
- Kinsey, B. B.* Resonances in the elastic scattering of protons. 1552.
- , *W. H.* and *Rhodes, R. A.* Laboratory examination for general college physics. 1920.
- Kip, A. F. s. Dexter, R. N.* 1857.
- s. *Dresselhaus, G.* 822, 823, 1653, 1860.
- s. *Owen, J.* 1848.
- Entstehung der menschlichen Lautbildungsfähigkeit als Evolutionsproblem. 1078.
- Kirby, R. C. s. Bailey, D. K.* 2507.
- Kirchhof, G.* Gleichzeitige Korrektur aller Seidel'schen Bildfehler bei Triplets aus dünnen Linsen. 2198.
- Kirchner, F.* und *Kirchner H.* Zählung von Einzelteilchen bei massenspektroskopischen Untersuchungen. 36.
- and *Ritter, H. A.* Desorption von positiven und negativen Ionen durch starke elektrische Felder. 1203.
- and *Welhelmy, W.* Gyromagnetisches Verhältnis des Protons. 944.
- Gyromagnetisches Verhältnis des Protons. 1347.
- , *H. s. Kirchner, F.* 36.
- Kiryama, Ryoiti s. Itoh, Junkichi.* 2462.
- Kirk, Don s. Simons, K. A.* 1454.

- Kirk, Russell D.* Role of sulfur in the luminescence and coloration of some aluminosilicates. 168.
- Kirkwood, J. G. s. Mazo, R. M.* 2074, 2427.
- Scientific work of Lars Onsager. 2255.
- , *Robert L.* Gravitational field equations. 1711.
- Kirmann, A., Saito, E. et Federlin, P.* Polarographie systématique des halogénures aliphatiques. 830.
- Kirwan, J. O. and Demler, L. E.* Continuous weighing and feeding. 1099.
- Kisdi-Koszó, Eva.* Operation of microtrons. 1517.
- Kishimoto, Tadashi and Nomoto, Otohiko.* Absorption of ultrasonic waves in organic liquids. II. Liquids with negative temperature coefficient of sound absorption (a) glycols, cyclohexanol and cresol. 1735.
- s. *Nomoto, Otohiko.* 2301.
- Kishinouye, Fuyuhiko.* Earth-vibrations on soft ground caused by fallen body. 2567.
- s. *Ikegami, Ryôhei.* 352.
- s. *Rikitake, Tsuneji.* 356.
- Kistiuk, P., Boyle, W. S. and Germer, L. H.* Electrical breakdown in high vacuum. 839.
- s. *Boyle, W. S.* 669, 1044.
- Arcing at electrical contacts on closure. V. Cathode mechanism of extremely short arcs. 482.
- Kissinger, C. W. s. Perls, T. A.* 371.
- Kisslinger, L. S.* L-S interaction in nuclei. 1139.
- Scattering of mesons by light nuclei. 1385.
- Scattering of π mesons by nuclei. 982.
- Kistemaker, J. and Snieder, J.* Measurements on a not self-sustaining gas discharge, with an axial magnetic field. 231.
- Kister, J. M. s. Beyster, J. R.* 1381.
- Kistiakowsky, G. B., Knight, Herbert T. and Malin, Murray E.* Gaseous detonations. III. Dissociation energies of nitrogen and carbon monoxide. 131.
- — IV. Acetylene-oxygen mixtures. 31.
- , *Vera Fischer.* Metastable states of Re^{180} , Ir^{191} , Au^{193} , Pb^{201} , and Pb^{203} . 1558.
- Kistler, A. L. s. Corrsin, S.* 914.
- Kita, Hideji.* Solution of the equation of motion. 2266.
- , *Isao and Minakawa, Osamu.* Nuclear interactions of secondary shower particles of cosmic rays in lead and carbon. 989.
- — Nuclear interactions of cosmic ray shower particles in lead. 1177.
- — Cloud chamber study of nuclear interactions in lead and carbon of secondaries emitted in cosmic ray penetrating showers. 2400.
- Kitagaki, Toshio.* Higher order focusing pair spectrometers. 932.
- Kitagawa, N., Iizuka, T. Murai, K. and Kobayashi, M.* Localization of atmospheric and their relation to meteorological phenomena. 2576.
- Kitamura, M. s. Ishikawa, G.* 2575.
- , *T. s. Higashi, S.* 1178.
- , *Yoshio and Minakawa, Osamu.* Absolute intensity of cosmic rays at geomagnetic latitude 25°N . 2401.
- Kitchen, H. s. Shirley, H. T.* 2212.
- Kitchener, J. A. s. Barfield, R. N.* 2287.
- s. *Kressman, T. R. E.* 382.
- s. *Talbot, A.* 1411.
- Kitt, G. P. s. Glueckauf, E.* 402, 1287.
- Kittel, C. and Mitchell, A. H.* Theory of donor and acceptor states in silicon and germanium. 470.
- s. *Dresselhaus, G.* 822, 823, 1653.
- , *J. H.* Using a scintillation spectrometer for determining uranium burnup. 1127.
- Kivel, B., Bloom, S. and Margenau, H.* Electron impact broadening of spectral lines. 1809.
- Electron broadening and shift of spectral lines of helium. 1400.
- Kivelson, D. and Lide, D. R. jr.* Internal motion in methyl amine. 437.
- (K + 2)nd order formula for asymmetry doublets in rotational spectra. 1619.
- Determination of the potential constants of SO_2 from centrifugal distortion effects. 1815.
- Kiyoura, R. and Ito, Y.* Measurement of specific heats of refractories at high temperatures. 747.
- Kjeldaas, T. jr. and Kohn, W.* Knight shift in metallic sodium. 278.
- Interaction of conduction electrons and nuclear magnetic moments in metallic sodium. 1646.

- Klätte, G.* Messungen an dielektrischen und ferromagnetischen Werkstoffen bei Frequenzen um 10 GHz. 1445.
- Klaiber, G.* *Stanley s. Box, Harold C.* 771.
- Klanke, G.* Induktion auf Grund thermisch bewirkter Magnetfeld-Schwankungen. 648.
- Klarmann, J., Kaplon, M. F. and Yekutieli, G.* V-particles in nuclear emulsion. 1333.
- *s. Crussard, J.* 394.
- *s. Kaplon, M. F.* 44, 1756.
- *s. Yekutieli, G.* 1333.
- Klasens, H. A. s. Bril, A.* 499.
- *s. Diemer, G.* 1072.
- *s. Zalm, P.* 329.
- Klauderer, H.* Analyse der Dämpfung freier Schwingungen. 910.
- Klaudy, Peter.* Eigenschaften und Anwendungsmöglichkeiten von Flüssigkeitskontakten. 1872.
- Klebe, Hans s. Weygand, Friedrich.* 2551.
- Kleef, Th. A. M. van and Klinkenberg, P. F. A.* Structure of Ta I. 1609.
- Kleen, Werner und Ruppel, Werner.* Berechnung der Rauschzahl der Traveling-Wave-Röhre. I. 490.
- *s. Döhler, Oskar.* 1251.
- Klein, A. s. Moellering, W. M.* 1809.
- and *McCormick, Bruce H.* Correlation of meson-nucleon scattering and nuclear forces. 246.
- *s. Bernstein, J. S.* 1763.
- *s. McCormick, Bruce H.* 7.
- *F. S. s. Feld, M.* 11.
- *G. et Prigogine, I.* Mécanique statistique des phénomènes irréversibles. III. 217.
- *O.* Theory of superconductivity. 2113.
- *S.* Traducteur electroacoustique: ionophone. 1734.
- Kleiner, Walter H.* Excited donor levels in silicon. 471.
- Klein, Wilhelm.* Theorie des Imvierer-Fernnebensprechens. 2501.
- Geschichtliche Entwicklung der Filtertheorien. 2514.
- Kleiner, W. H.* Magnetic scattering of slow neutrons from O₂ gas. 605.
- Kleinheins, Peter.* Intensitätsmessungen im 180°- β -Spektrographen durch Auszählen der Elektronenspuren in Kernspurplatten. 1325.
- Kleinwächter, Hans.* Transversale elektromagnetische Lecherwelle des Koaxialkabels als entartete Hohlleiterwelle. 485.
- Kleis, D.* Experimente zur Verbesserung der Raumwirkung von Schall. 549.
- Kleitman, D. and Goldsmith, G.* Conduction in phthalocyanine crystals. 1436.
- and *Longo, T. A.* Deuteron irradiation of germanium at 90°K. 1434.
- *s. Longo, Thomas, A.* 1434.
- Klema, E. D. s. Lazar, N. H.* 962, 1155.
- *s. Osborn, R. K.* 1767.
- Gamma-gamma angular correlation in Ba¹³⁴. 1563.
- Klemans, P. G. s. Krishnan, Sir K. S.* 2419.
- Klemenc, A.* Glimmlicht-Elektrolyse. XXII. Verhalten wäßriger Lösungen von Methylalkohol, Isopropylalkohol und Essigsäure. 2159.
- Klemens, P. G.* Scattering of low-frequency lattice waves by static imperfections. 1006.
- Transport of heat through narrow channels by liquid helium II. 2073.
- Specific heat and thermal conductivity of graphite. 2308.
- *s. Kemp, W. R. G.* 1022, 1317.
- Klemin, A.* Séparation des isotopes par migration électrolytique des ions. 2360.
- Thermodynamik der Transportvorgänge in Ionengemischen und ihre Anwendung auf isotonenhaltige Salze und Metalle. 385.
- Klerer, M. and Hatcher, R. D.* Approximately relativistic equations. 365.
- Klerk, D. de s. Beun, J. A.* 2462.
- Klett, C. s. Schober, H.* 1277.
- Verstärkung und Randunschärfe bei Röntgen-Verstärkerfolien. 2228.
- Kley, W. s. Gentner, W.* 933.
- Klick, C. C. s. Patterson, D. A.* 1891.
- *s. Russell, G. A.* 630, 2071.
- *s. Schulman, James H.* 343.
- Kliefoth, Werner.* Nachdenkliches zur Atomkonferenz. 533.
- Hearings zur Entstehung der H-Bombe oder die Verantwortung der Physiker. 533.
- Sechste Tagung der Nobelpreisträger in Lindau. 2257.
- Klier, Manfred s. Genzel, Ludwig.* 1066.
- Kligman, F. I.* Statistische Theorie schwerer Kerne und Kernkräfte. 236.

- Kline, R. M. and Zaffarano, D. J.* Decay characteristics of some short-lived nuclides of low atomic number. 59.
- Klingelhöffer, Hans.* Chromatographische Untersuchung des Verklebungsvorganges bei Papieren. 1474.
- Klingensmith, R., Dally, E. and Arfken, G.* Stability of the transuranic elements. 240.
- Klinger, H. H.* Ergebnisse und Probleme der Radioastronomie. 1696.
- Klinkenberg, P. F. A.* Transactions of the Joint Commission for Spectroscopy. Minutes of the Lund Meetin, July 1—3, 1954. 1291.
- *s. Kleef, Th. A. M. van.* 1609.
- Klitzing, Kurt Hans v. s. Gielessen, Johannes.* 2113.
- Kloholm, E. s. Otter, F. A. jr.* 1474.
- Klontz, E. s. Stoeckmann, F.* 2124.
- , *E. E., Pepper, R. R. and Lark-Horowitz, K.* Electrical properties of electron bombarded Ge. 2473.
- Klotter, Karl.* Free oscillations of systems having quadratic damping and arbitrary restoring forces. 2281.
- Kluge, Werner und Schulz, Arno.* Senkung des Kathodenfalles der normalen Glimmentladung durch Kathodenbestrahlung. 670.
- — Brennspannungsabsenkung der normalen Glimmentladung durch Kathodenbestrahlung. 839.
- — Bestätigung der Zündgesetze von Rogowski und Fucks an technischen Kaltkathoden-Entladungsgefäßen. 2164.
- Kluitenberg, G. A. and Groot, S. R. de.* Relativistic thermodynamics of irreversible processes. IV. Systems with polarization and magnetization in an electromagnetic field. 550.
- V. Energy-momentum tensor of the macroscopic electromagnetic field, the macroscopic forces acting on the matter and the first and second laws of thermodynamics. 550.
- Relativistic thermodynamics of irreversible processes. III. Systems without polarization and magnetization in an electromagnetic field. 1968.
- Kluypen, J. C. s. Rietjens, L. H. Th.* 1122.
- Kmetko, E. A.* Properties of powdered germanium and effects of heat-treatment. 2473.
- Knacke, O. und Stranski, I. N.* Theorie des Kristallwachstums. 2069.
- Knapcz, G.* Entlinearisierung der Quantenmechanik. 720.
- Freie hypothetische Welt der Elementarteilchen. 720.
- Knapp, Heinrich.* Entschmierungs-Verfahren für Röntgenkleinwinkel-Untersuchungen mit Hilfe der neuen Kratky'schen Kamera. 1831.
- , *Myron W. and Powell, Wilson M.* Negative pions from neutron bombardment of deuterons. 1343.
- — Negative pions from neutron bombardment of deuterons. 2354.
- Knappe, Werner.* Hydrodynamisches Modell zur Darstellung von Diffusionsvorgängen mit konzentrationsabhängigen Diffusionskoeffizienten. 755.
- Knappwost, A.* Einfluß und Ausschaltung der ferromagnetischen Suszeptibilität bei magnetochemischen Untersuchungen nach der Zylindermethode. 123.
- Magnetische Untersuchungen der Diffusion im System Kupfer-Eisen. 868.
- Ausschaltung der ferromagnetischen Suszeptibilität bei magnetochemischen Untersuchungen nach der Zylindermethode. 1208.
- Kneschke, A.* Zusammenhang differentieller Integrationsprobleme mit den Interpolationstheoremen. 2261.
- Knight, H. T. s. Duff, R. E.* 926.
- *s. Kistiakowsky, G. B.* 31.
- , *J. D. and Baker, E. W.* Decay properties of Tl^{165} and Tl^{197} and Tl^{198m} . 1548.
- — Radiochemical study of Tl^{195} , Tl^{197} and Tl^{198m} . 2022.
- , *J. R. et Rhodes, E. C.* Alliages du fer avec le palladium et le platine examen critique des publications faites à ce sujet. 2545.
- , *L.* Valve reliability in digital calculating machines. 185.
- Stabilized d. c. supplies using grid-controlled rectifiers. 1640.
- Knipp, J. K. s. Jones, J. T. jr.* 393.
- Knipper, Albert s. Gorodetzky, Serge.* 74.
- , *A. C. s. Bishop, G. R.* 237.
- *s. Cacho, C. F. M.* 1140.
- Knipping, P. s. Friedrich, W.* 535.
- Knol, K. S. s. Becking, A. G. Th.* 488.
- Knoll, M. Hook, H. O. and Stone, R. P.* Characteristics of a transmission con-

- trol viewing storage tube with half-tone display. 683.
- Knoop, Ernst. Zündempfindlichkeit und Zündverzögerungszeit von Gastrioden und -tetroden. 1060.
- Knopoff, L. and Uffen, R. J. Densities of compounds at high pressure and the state of the earth's interior. 884.
- Knorr, C. A. Kinetik der kathodischen Wasserstoffentwicklung. 661.
- s. Breiter, M. 661, 750, 1439.
- s. Reinkowski, D. 833.
- Knott, R. D., Colson, I. D. and Young, M. R. P. Breakdown effect in p-n alloy germanium junctions. 132.
- Knowles, D. J. Monitor for airborne alpha particles. 2559.
- , J. W. Anomalous absorption of neutrons in single crystals. 605.
- Knuth, Eldon L. Mechanics of film cooling. II. 1945.
- Ko, H. C. and Kraus, J. D. Radio-Frequency radiation from the Rosette nebula. 1484.
- s. Kraus, J. D. 1281.
- Koba, Z. Velocity of the Dirac electron. 1095.
- Kotani, R. and Nakai, S. Production of charged π -meson by γ -ray. Higher order corrections. 2355.
- Kobayashi, Akio and Kawaji, Shinji. Adsorption and surface potential of semi-conductors. I. Photo-enhanced adsorption of oxygen and change of contact potential of ZnS phosphors with illumination. 1261.
- , Jinzo and Ueda, Ryuzo. X-ray study of phase transition of ferroelectric PbTiO_3 at low temperature. 1445.
- , K. s. Matsuzaki, H. 2239.
- , M. s. Kitagawa, N. 2576.
- s. Nakamoto, Kazuo. 2062.
- , Yoshiyuki and Miyamoto, Goro. Spherical condenser type spectrometer. 2524.
- and Mori, Shigeru. Beta-spectrum of Ni^{63} . 1161.
- Kobe, K. A. s. Pennington, R. E. 1508.
- , Milos. Graphic determination of the amplitude stability of power oscillators. 1248.
- Koch, C. W. and Cunningham, B. B. Vapor phase hydrolysis of the actinide halides. I. Heat and free energy of the reaction $\text{AmCl}_3(\text{s}) + \text{H}_2\text{O}(\text{g}) = \text{AmOCl}(\text{s}) + 2\text{HCl}(\text{g})$. 212.
- Koch, C. W. and Cunningham B. B. III. Heat and free energy of the reactions $\text{PrCl}_3(\text{s}) + \text{H}_2\text{O}(\text{g}) = \text{PrOCl}(\text{s}) + 2\text{HCl}(\text{g})$ and $\text{NdCl}_3(\text{s}) + \text{H}_2\text{O}(\text{g}) = \text{NdOCl}(\text{s}) + 2\text{HCl}(\text{g})$. 212.
- , H. W., Wyckoff, J. M. and Petree, B. Response of a sodium-iodide spectrometer to high-energy electrons. 388.
- s. Wyckoff, J. M. 1776.
- , Klaus v. s. Butenuth, Gottfried. 325.
- , K. M. Galvanomagnetische Effekte in Ferromagnetis. 281.
- , Pierre. Anwendungen der nicht-linearen Charakteristik von Germanium Kristall-Dioden. 2479.
- , R. s. Lehovc, K. 823.
- Kochanowsky, W. Bemerkungen zu den Folgen XII, XVI und XVII der Aufsatzreihe: Strukturmechanik rheonomer Systeme von R. Schwaben und H. Umstätter-Berlin. 2077.
- Erwiderung Umstätter auf Kochanowsky. 2077.
- Kochendörfer, Albert und Müller, Hans-Günther. Einfluß elastischer Beanspruchungen auf die Martensitbildung. 1074.
- und Rohrbach, Christof. Kennzeichnung der Spröbruchneigung von Stählen durch Messung der Fließspannung, Reißspannung und Bruch-einschnürung an dreiaxsig beanspruchten Proben. 1074.
- Kochendorfer, D. B. and Farmer, Donald J. Decay of Rh^{102} . 66.
- Kock, Winston E. Acoustic gyrator. 920.
- Kodis, Robert D. s. Guterman, S. 1709.
- Koehlin, Yves. Compteur proportionnel à coque de Be pour la détection de neutrons rapides. 2338.
- Köhler, A. Mikroskop und Brille. 312.
- 2254.
- , H. Feldstecherbau. 1881.
- Abbildungstheorie anamorphotischer Systeme. 2199.
- , Horst. Objektive Beurteilung der außeraxialen Bildgüte optischer Instrumente für visuelle Beobachtung. 310.
- Koehler, J. S. Velocity of dislocations. 1408.
- s. Cooper, H. G. 610.
- Köhler, S. Polarization of high energy nucleon scattered by nuclei. 602.
- Koehler, W. C. and Wollan, E. O. Neutron diffraction by metallic erbium. 441.

- Koehler, W. C.* s. *Wollan, E. O.* 1624.
- Koelmans, H.* Suspensions in non-aqueous media. 1637.
- König, Albert** 16. 8. 1871, † 30. 4. 1946. 2254.
- , *F.* Wirkungsgrad im Betrieb von Bleiakkumulatoren. 2486.
- , *H. Drahowzal, F. und Maschka, A.* Vereinfachte modellmäßige Behandlung des Gleichgewichtes zwischen Solvatation und Assoziation in Lösungen. Molekülstrukturen in Grignardschen Lösungen. 1114.
- , *L. A. s. Hintenberger, H.* 555.
- Newtons Abbildungsgleichung des magnetischen Sektorfeldes bei Berücksichtigung des Streufeldes. 555.
- Koenig, S. H. and Gunther-Mohr, G. R.* Low-temperature electrical conductivity of germanium. 1220.
- Koenigsberg, E.* s. *Keller, J. M.* 443.
- and *Findley, Leon.* Conductivity of thin films in a longitudinal magnetic field. 271.
- Koenigsfeld, L.* Investigations of the potential gradient at the earth's ground surface and within the free atmosphere. 527.
- Köppen, Nina* s. *Dietzel, Adolf.* 2428.
- Koerts, L. Macklin, P. Farrelly, B., Lieshout, R. van and Wu, C. S.* Radiations of I^{26} . 1156.
- s. *Benczer, N.* 1159, 2376.
- s. *Farrelly, B.* 1161, 1560.
- , *L. A. Ch. s. Lieshout, R. van.* 1566.
- Kosseler, P.* Natur und Technik. 1289.
- Koester, Charles J. s. Givens, M. Parker.* 1610.
- Köster, Erwin.* Verwendbarkeit einiger photochemischer Röntgenreaktionen zur Dosimetrie von Röntgen- und Gammastrahlung. 1078.
- Koester, L. J.* Photoproduction of π^0 mesons in hydrogen. 943.
- , jr. Neutral photomesons from hydrogen. 1525.
- Low-energy photoproduction of π^0 mesons in hydrogen: differential cross sections at 135° . 1340.
- s. *Goldwasser, E. L.* 47, 943.
- s. *Mills, F. E.* 1340, 1525.
- Köster, Werner und Frei, Adolf.* Aushärtung von Aluminium-Silber-Legierungen. VIII. Messung der Hallkonstante und der magnetischen Suszeptibilität. 2545.
- Köster, Werner. Bangert, Lothar und Lang, Walter.* Dämpfung und Gleitmodul von verformtem und rekristallisiertem Kupfer. 732.
- Köthe, G.* Bild der heutigen Mathematik. 713.
- Kofler, A.* Periodische Umlagerungen beim Kristallisieren und Schmelzen von Mischkristallen. 1075.
- , *L.* Heitzischmikroskop und seine Zusatzgeräte. 2521.
- Kofoed-Hansen, O.* Theoretical angular correlations in allowed beta transitions. 1161.
- Alternative interpretations of slow-neutron cross sections. 1552.
- Effects of the recoil on allowed β -transitions. 1575.
- and *Nielsen, A.* Construction of a spectrometer for neutrino recoils: investigation of the decay of A^{37} . 2022.
- s. *Alaga, G.* 1368.
- s. *Margolis, B.* 1553.
- s. *Winther, Aage.* 593.
- Kofstad, Per* s. *Hauffe, Karl.* 289.
- , *Per K. s. Mathur, Hirdaya B.* 73.
- Koga, Toyoki* s. *Taketa, Naturo.* 2336.
- Kogarjan, N. M.* Protonenkomponente der kosmischen Strahlung in einer Höhe von 3200 m über dem Meerespiegel. 249.
- Kohashi, Y. and Oda, A.* Noise measurements with a recording sound level meter. 2299.
- Kohl, Douglas.* Scintillation-counter brain needle. 931.
- Kohler, F. and Rice, O. K.* Critical phenomena in the triethylamine-water system. 1742.
- , *Max.* Formulierung der Erhaltungssätze der Energie und des Impulses in der allgemeinen Relativitätstheorie. 1924.
- Einfluß der Austauschwechselwirkung auf die Wärmeleitfähigkeit von Metallen. 2112.
- **Kohlrausch.* Praktische Physik. 2. 2253.
- Kohman, T. P. s. Simanton, J. R.* 59, 591.
- Geochronological significance of extinct natural radioactivity. 933.
- Kohn, A. et Doumerc, J.* Phénomènes observés sur des échantillons métalliques irradiés dans l'air par des deutons d'environ 3 MeV. 1983.

- Kohn, W. Spin resonance widths of electrons in donor states in silicon. 2474.
- and Luttinger, J. M. Hyperfine splitting of donor states in silicon. 470.
- Theory of donor levels in silicon. 470.
- Theory of donor states in silicon. 1024.
- Theory of the energy levels of donor electrons in silicon. 1025.
- s. Kjeldaa, T. jr. 278, 1646.
- s. Luttinger, J. M. 470.
- Kohnke, E. E. and Ewald, A. W. Hall effect in gray tin filaments. 1433.
- Kohra, Kazutake. Simultaneous reflexion in electron diffraction as a cause of the failure of Friedel's law. 1623.
- s. Nonaka, Kôzô. 2087.
- Koicki, Stevan Ballini, Reni et Chaminade, Robert. Spectrométrie par scintillations (avec mesures de coïncidences β - γ) des γ consécutifs à la radioactivité β - de ^{48}Sc . 963.
- Koide, Shoichiro s. Yokota, Mario. 123.
- Koizumi, Masao s. Mataga, Noboru. 1257.
- Kojima, Hiroshi s. Okamura, Toshihiko. 2455.
- , Masao s. Yamashita, Jiro. 2418.
- , R. s. Iwasaki, M. 2054.
- , Shoji and Kono, Soji. Light effect of a diamond alpha ray counter. 2342.
- and Ogawa, Shizuko. Proton magnetic resonance absorption in cetyl alcohol. 2462.
- Takayama, Kazuo and Shimauchi, Akira. Probe measurement for high frequency discharge. III. 2488.
- , Takeshi and Nishikawa, Tetsuji. Microwave spectrum of methyl mercaptan. I. 1189.
- , Yuzo s. Torizuka, Yoshiharu. 1019.
- Koks, H. L. T. s. Zwietering, P. 335.
- Kolchin, Eleanor K. s. Green, Louis C. 619.
- s. Lewis, Margaret N. 96, 1886.
- Kolin, Alexander. Microelectrophoresis. 116.
- Separation and concentration of proteins in a pH field combined with an electric field. 1691.
- Kollmann, W. s. Dänzer, H. 1107.
- Kollmannsperger, Heinz. Direktbestimmung von Molekulargewichten von Gasen und Dämpfen im Druckbereich von 10^{-2} bis 10^{-6} Torr. 252.
- Kolm, Henry H. and Herlin, Melvin A. Method for measuring the absolute viscosity of liquid helium II. 449.
- Kolodziejski, R. Phase-shift formula for many-body collisions. 2033.
- Kolsky, Harwood G. Method for numerical solution of transient hydrodynamic shock problems in two space dimensions. 917.
- Kolthoff, I. M. and Medalia, A. I. Redox recipes. IV. Dihydroxyacetone recipes at 0°C . 451.
- Redox system, ferrous sulfide-cumene hydroperoxide. 451.
- Meehan, E. J. and Carr, C. W. Studies on rate of emulsion polymerization of butadiene-styrene (75:25) as a function of amount and kind of emulsifier used. III. Effect of amount of soap on rate of polymerization. 451.
- Komar, Arthur. Defining invariants of metric spaces. 360.
- Komatsu, Hachiro s. Kakiuchi, Yoshinobu. 2462.
- Komatsuzawa Akira, Munakata, Yasuo Hasegawa, Hiroichi. Double meson and production in the intermediate-coupling theory. I. 2349.
- Komatu, Kozo. Magnetic structure of manganese antimonide. 2454.
- Komoss, S. G. el s. Nikitine, S. 2063.
- Kompanejev, A. Ss. Vielfachstreuung im COULOMB-Feld sehr dünner Stoffschichten. 243.
- Komura, Yukitomo s. Kakinoki, Jiro. 1001, 2416.
- Kondo, Ichiro s. Yoshida, Sekiko. 2046.
- , Kazuo Approximate expression of the theory of the lifting line. 1309.
- , Sei-ichi and Matsumoto, Masaru. Colorcenters of KCl-KBr mixed crystals in visible region. 2425.
- Kondoh, Atsushi. Interaction between spin waves and conduction electrons. 1406.
- , Hisamoto s. Uchida, Enji. 1422.
- Kono, Soji. Scintillation spectrometer studies on the beta-activity of K^{40} . 1141.
- s. Kojima, Shoji. 2342.
- Konopinski, E. J. Fermi's theory of beta-decay. 967.
- Konstantinowa-Schlesinger, M. A. s. Gorbatschewa, N. A. 1892.
- Koonce, S. E. s. Calbick, C. J. 1889.
- Koontz, P. G. Johnston, C. W. Keepin, G. R. jr. and Gallagher, J. D. Multi-channel recording time-delay analyzer. 385.

- Kootstra, N. A. S. J. Kontinuierliche Dickentoleranz-Messungen in der Industrie. 332.
- Kooy, J. and Hermans, J. J. Precision viscometry of polymer solutions. 1630.
- Kopal, Zdeněk. Physics of the sun. 1907.
- Kopfermann, H. s. Brix, P. 2050.
- Steudel, Andreas und Trier, Jost Otto. Feinstruktur und Hyperfeinstruktur im Rb II-Spektrum und das Kernquadrupolmoment von Rb⁸⁷. 994.
- Koppe, H. Umkehrungsproblem in der verallgemeinerten Elektrodynamik. 280.
- Definition der Spin-richtung in der Diracschen Theorie. 1717.
- Koppelman, G. und Krebs, K. Einfluß der Dispersion auf die optische Schichtdickenbestimmung. 2090.
- , Jan. Dynamisch-elastisches Verhalten hochpolymerer Stoffe. 2084.
- Kordes, Ernst. Ionengröße, Molekularrefraktion bzw. Polarisierbarkeit und Lichtbrechung bei anorganischen Verbindungen. I. AB-Verbindungen mit einwertigen edelgasähnlichen Ionen (Alkalihalogenide). 161.
- Direkte Berechnung von Ionenradien aus der Molekularrefraktion bei AB-Verbindungen mit einwertigen edelgasähnlichen Ionen. 993.
- III. AB-Verbindungen mit edelgasähnlichen ein- und zweiwertigen Ionen. 993.
- Heterogenes Gleichgewicht Flüssigkeit \rightleftharpoons Dampf. I. Allgemeine Zustandsgleichung der gesättigten Dämpfe. 2317.
- Korff, S. A. s. Neuburg, H. A. C. 427.
- s. Soberman, R. K. 249, 1606.
- Kornblith, Lester jr. r-f generator for nuclear energy studies. 233.
- Kornetzi, M. Rechteckförmige Magnetisierungsschleife von Ferritkernen. 1210.
- and Burger, H. Verhalten von Ferritkernen mit rechteckförmiger Magnetisierungsschleife im inhomogenen Magnetfeld und bei Scherung. 1210.
- Brackmann, J. und Frey, J. Magnetische Ferrite mit Perminvarschleife. 1897.
- Korostyleva, L. A. Striganov, A. R. und Jašin, N. M. Hyperfeinstruktur der Spektrallinien und Kernspin von U²³³ und Pu²³⁹. 1805.
- s. Striganov, A. R. 1805.
- Korringa, J. Satellites in the soft X-ray spectrum of Zr. 96.
- and Gerritsen, A. N. Cooperative electron phenomenon in dilute alloys. 1221.
- s. Duant, J. G. 1407.
- Kortel, F. s. Heisenberg, W. 1093.
- Kortlandt, D. s. Wolff, P. M. de. 795.
- Kortüm, G. und Buck, M. Dielektrische Messungen zur Struktur der thermochromen Äthylene. 2168.
- und Haug, P. Thermodynamische Untersuchungen am System 2,4-Lutidin-Wasser mit geschlossener Mischungslücke. 1511.
- und Luck, W. Quantitative Absorptionsuntersuchungen an der sichtbaren Bande der Brom- und Joddämpfe. 318.
- Dreesen, G. und Freier, H.-J. Thermodynamik von Flüssigkeitsmischungen verschiedener Molekülgröße. Mischungswärmen des Systems Benzol-Diphenyl. 380.
- Freier, H. J. und Woerner, F. Dynamische Methode der Bestimmung von Dampf-Flüssigkeits-Gleichgewichten. 215.
- s. Mauser, Heinz. 1440.
- Kortum, G. Courbes de couleur caractéristiques des poudres. 688.
- Comportement électrolytique et diélectrique de l'iode dans les solvants organiques. 2151.
- , H. s. Kämmerer, W. 714.
- Koshiba, M. and Kaplon, M. F. Observations on the high-energy soft cascade. 989.
- — Analysis of a high-energy cosmic-ray shower. I. Soft component and trident process. 989.
- — High-energy cosmic-ray soft showers in nuclear emulsion. 1390.
- and Schein, Marcel. Time variation of primary heavy nuclei flux in the cosmic radiation. 1389.
- s. Williams, D. B. 2000.
- Koskarev, D. G. s. Goldin, L. L. 761.
- Koski, W. S. s. Iwersen, John E. 971.
- Kosmahl, H. Eingangsstufe eines HF-Verstärkers als aktiver Vierpol. 1249.
- Ströme und Leitwerte von Trioden im Laufzeitgebiet. 2516.
- Kossel, W. Halterung von Hochspannungskörpern. 2175.

- Kossel, E. und Walz, K. Ablauf des Kristallwachstums. 1823.
- Mayer, U. und Wolf, H. C. Simultan-Dosimetrie von Strahlungsfeldern im lebenden Objekt. 1694.
- Menzel, E. und Naumann, G. Flächen gleichrichtung als Funktion der kristallographischen Orientierung. 825.
- Demonstrationsversuch zur selektiven Absorption von Koppelungswellen. 909.
- Plastisches Fließen. 1728.
- Koster, G. F. Theory of scattering in solids. 444.
- Density of states curve for nickel. 1020.
- Extension of Hund's rule. 1803.
- and Slater, J. C. Simplified impurity calculation. 444.
- Kostkowski, Henry J. Line half-width and its variation with temperature in the 10,4-micron band of CO₂. 1816.
- Kostron, Hans und Schippers, Margarete. Metallographie der Leichtmetalle. VII. Beobachtungen über die dendritische Kristallisation von Reinaluminium. 2543.
- IX. Beobachtungen am Gefüge von Wassergußbarren aus Al 99,5. 2543.
- Kotadia, K. M. and Rastogi, R. G. Characteristics of the ionosphere over Ahmedabad. 2571.
- and Sheriff, R. M. Characteristics of the ionosphere over Ahmedabad, Juni 1954. 1286.
- Kotaki, Tomio s. Nishimura, Genrokuro. 2584.
- Kotani, Masao, Ishiguro, Eiichi, Hijikata, Katsunori Nakamura, Takashi und Amemiya, Ayao. Tables of integrals useful for the calculations of molecular energies. III. 2271.
- , R. s. Koba, Z. 2355.
- , Seiichi s. Arizumi, Tetsuya. 2447, 2448.
- Kotas, D. E. s. Stergis, C. G. 711.
- Kothari, D. S. s. Auluck, F. C. 1281.
- , L. S. and Singwi, K. S. Thermal inelastic scattering of cold neutrons in polycrystalline solids. 775.
- s. Auluck, F. C. 360.
- Kothe, Erich. 100 Jahre Verein Deutscher Ingenieure. 1490.
- *Kotschin, N. J. Kibel, J. A. und Rose, N. W. Theoretische Hydromechanik. II. 1705.
- Kottwitz, David A. Magnetic superexchange interaction. 1210.
- Koudijs, B., Endt, P. M., Hart, J. M. van der and Palmen, P. J. W. Angular distributions of protons from the C¹³(d, p)C¹⁴ and C¹²(d, p)C¹³ reactions. 2012.
- s. Endt, P. M. 2012.
- Kourganoff, V. Observations révélant des processus de désintégration nucléaire dans certains astres. Mit V. A. Ambarcumjan. 878.
- Kovács, I. s. Budd, Á. 1615.
- , J. S. Angular correlation of mesons produced in inelastic meson-nucleon collisions. 392.
- Final-state interaction in the multiple production of mesons in nucleon-nucleon collisions. 398.
- Kovarik, A. F. and Adams, N. I. jr. Redetermination of the disintegration constant of U²³⁸. 403.
- Kovasznyai, L. S. G. and Joseph, H. M. Processing of two-dimensional patterns by scanning techniques. 683.
- Experimental study of shock wave turbulence interaction. 916.
- Kovaka, Masamichi s. Sugeno, Takesi. 2543.
- Kozelj, Vence A. Relativistik bei parallelen Stromgeraden. 2464.
- Kraakevik, J. H. s. Clark, J. F. 889.
- Kraemer, H. F. and Westwater, J. W. Digital computer solution for heat transfer to temperature probes. 2307.
- Krässig, H. Symposium für makromolekulare Chemie in Zürich. 1291.
- Tagung der GDCH-Fachgruppe Kunststoffstoffe und Kautschuk. 1291.
- Krag, W. E. s. Bullis, W. M. 1433.
- Kraichnan, Robert H. Special-relativistic derivation of generally covariant gravitation theory. 1493.
- Krainer, Helmut s. Titz, Ilse. 1017.
- Krakauer, Stewart. Electrometer triode follower. 489.
- Kramer, Bernard s. Kallmann, Hartmut. 292, 1863.
- , Mary, J. Molecular orientation produced in polymethyl methacrylate by hot stretching. 111.
- , P. s. Huan, E. F. de. 1575.
- s. Hok, Ong Ping. 2383.
- Kramers, W. J. Scientific approach to new ceramics. II. 2547.

- Kranjc, Katarina.* Chromatic error in small-angle X-ray scattering analysis. 104.
- Collimation error of circular apertures in small-angle X-ray scattering. 104.
- Kranz, Jakob und Bodewig, Claus.* Reduzierte Normalkurve ferromagnetischer Legierungen. 868.
- Krasner, Marc.* Prolongement analytique dans les corps valués complets: éléments analytiques, préliminaires du théorème d'unicité. 2260.
- , *Sol.* Electron loss cross sections for helium atoms passing through gases, 1395.
- and *Cuevas, J.* Electron loss cross sections of moving helium atoms. 1395.
- Krasnow, M. E. s. Lassetre, N.* 98.
- Kratky, O.* Bestimmung der Gestalt von korpuskularen und fadenförmigen Makromolekülen nach der Röntgen-Kleinwinkelmethode. 1831.
- und *Porod, G.* Zu *Hosemann, R.*: Kleinwinkelstreuung der Cellulose. 1411.
- s. *Hosemann, R.* 1411.
- s. *Janeschitz-Kriegl, H.* 1633.
- *Schauenstein, E., Sekora, A., Pilz, I. und Röhsler, K.* Vergleichende röntgenographische und ultraviolett-spektrographische Untersuchungen an renaturierten Seiden-Gelen. 2431.
- Kraus, Alfred A. jr. s. Bonner, T. W.* 2011.
- , *J. D., Ko, H. C. and Stoutenburg, D. V.* Fluctuating celestial radio source at 242 megacycles per second. 1281.
- s. *Ko, H. C.* 1484.
- Krause, Hans-J.* Struktur der niederen Homologen des Phosphornitrilchlorids 995.
- , *Ingrid Yvonne.* Härte der Sekundärstrahlung von Co^{60} - γ -Strahlen. 80.
- , *Max s. Diehl, Jörg.* 1101.
- Kraushaar, J. J., Brun, E. and Meyerhof, W. E.* Decay scheme of gallium-72. 1570.
- s. *Brun, E.* 1790.
- Krauss, Walther und Grund, Harald.* Adsorptionsspektren polarisierter organischer Moleküle und deren Gesetzmäßigkeiten. III. Offenkettige Polyenaldehyde. 1190.
- Krantz, Erich und Schultz, Herrmann.* Temperaturabhängigkeit des Restwiderstandes von Wolfram im Temperaturbereich von 14°K bis 373°K . 1021.
- Kravtchenko, Juliens. McNown, John.* 548.
- Kraybill, H. L. s. Walker, R. M.* 941, 1133.
- Krebs, A. T. s. Kereiakes, J. G.* 89.
- , *Heinz Thees, Richard und Meyer-Eppler, Werner.* Photomechanisches Verfahren zur Berechnung der Atomverteilung in amorphen Substanzen. 2063.
- , *K., Nelkowski, H. und Winkler, R.* Zusammenhang zwischen elektrischem Widerstand und optischen Größen bei Silberaufdampfschichten. 1417.
- s. *Koppelman, G.* 2090.
- Kreger, W. E.* K capture to positron ratio for Na^{22} . 78.
- and *Cook, C. Sharp.* Gamma radiation from Ce^{144} and Pr^{144} . 80.
- — K capture/positron ratio of Na^{22} . 1576.
- *Isaac, Mc L. D., Mackin, J. L. and Lai, J. R.* Radioactive decay of W^{181} and W^{185} . 1159.
- s. *Cook, C. Sharp.* 66.
- s. *Edelsack, E. A.* 2039.
- Krehl, Felix.* Fälschlicherweise dem Luftdruck zugeschriebener Vorgang. 1920.
- Reifenapparatversuche zur Bewegungsenergie. 1920.
- , *Kurt s. Schägfer, Harald.* 1113.
- Kreidel, N. J. s. Blair, G.* 173.
- Kreiken, E. A.* Relation P/\dot{q} for spectroscopic binaries and eclipsing binaries. 176.
- Kreith, F. and Romie, F. E.* Thermal diffusion equation with boundary conditions corresponding to solidification or melting of materials initially at the fusion temperature. 923.
- s. *Campagna, Frank.* 1950.
- Kreütz, Ernst.* Gerät zur Registrierung der langwelligen Gegenstrahlung auch bei Tage. 2250.
- Krempl, Fritz s. Frühling, Hans-Georg.* 2556.
- Krempl, Hans, Dorsch, Dieter und Pfundt, Heimar.* Erfahrungen mit lichtelektrischen Messungen von Linienintensitäten bei der Emissionsspektralanalyse. 858.
- Krenchel, H.* Treatment of tension test specimens for fixing in testing machine. 1267.

- Krenz, F. H. Symposium on radiation chemistry. 895.
- Kresge, J. S. s. Liao, T. W. 2497.
- Kressin, G. s. Lange, H. 862.
- Kressman, T. R. E. and Kitchener, J. A. Cation exchange with a synthetic phenolsulphonate resin. V. Kinetics. 382.
- Kretschmar, George G. Determination of the velocity of sound in hydrazine-water mixtures by means of the Debye-Sears ultrasonic light diffraction phenomena. 22.
- and Wedaa, Henry W. Optical method for the study of impinging jets in a liquid stream. 19.
- Kretschmar, Martin. Berechnung von Stripping-Prozessen. 1168.
- Kretzmer, E. R. Amplitude stabilized transistor oscillator. 2138.
- Kreutzer, Karl. Magnetische Polstärke. 1920.
- Krieg, A. Einrichtung für Fluoreszenzmikroskopie im durch- und auffallenden Licht. 1471.
- Krieger, R. Lichtverteilung im Bild eines Linienstückchens in Abhängigkeit von Bildfehlern 3. Grades des optischen Systems. 2199.
- , Rudolf. Lichtverteilung im Bild eines Linienstückchens bei Aberrationsfunktionen 2. Grades in den Pupillenvariablen. 320.
- , Theodore J. s. James, Hubert M. 2068.
- Kriegsmann, H. s. Simon, A. 2406.
- Krienes, K. s. Kotschin, N. J. 1705.
- Kriessman, C. J. and Harrison, S. E. Ionic equilibrium in a series of magnesium-manganese ferrites. 1898.
- Krimm, S. and Liang, C. Y. Infrared spectrum and structure of polyvinylidene chloride. 1839.
- s. Liang, C. Y. 1839.
- , Samuel. Infrared dichroism in the 13.8μ band of $n\text{-C}_6\text{H}_7$ single crystals and polyethylene. 1827.
- Kring, Elbert V. s. Jasper, Joseph J. 2443.
- Krings, A. s. Hawk, V. 257.
- Krinsky, Albert s. Wexler, Arnold. 2332.
- Krisch, Alfred. Verfestigung bei der Tiefziehprüfung. 2540.
- s. Wever, Franz. 1269.
- Krisement, O. und Wever, F. Anwendung einer Borelius'schen Theorie des Strukturzusammenhangs zwischen festem und flüssigem Zustand auf das Eisen. 868.
- Krishnaji and Swarup, Prem. Dispersion in Ammonia in 3 cm region. 2167.
- Krishnamurthi, M. and Sastry, G. Sivarاما. Elastic constants of gels. 1205.
- Krishnamurthy, P. V. and Asundi, R. K. π -type of mass spectrometer for isotope abundance measurements. 1749.
- Krishnan, Sir K. S. and Klemens, P. G. Temperature variation of the thermodynamic potential of a degenerate electron gas. 2419.
- s. Jain, S. C. 1960.
- , R. S. Elastic constants of crystals from light scattering measurements. 1100.
- Kristensen, P. Configuration space representation for non-linear fields. 899.
- and Moller, C. Convergent meson theory. I. 901.
- Kristiansson, Krister. Radioactive altimeter for stratosphere balloons. 2580.
- Kristofory, Franz L. Verhütung von Überspannungsschäden in Installationsanlagen. 676.
- Kroebel, W. Objektiver Ermüdungstest. 340.
- Kröger, F. A. and Meyer, H. J. G. Edge emission of ZnS , CdS and ZnO and its relation to the lattice vibrations of these solids. 329.
- and Nobel, D. de. Preparation and electrical properties of CdTe single crystals. 475.
- Vink, H. J. and Boomgaard, J. van den. Controlled conductivity in CdS single crystals. 2477.
- s. Boomgaard, J. van den. 290.
- Krömer, Herbert. Theorie des Germanium gleichrichters und des Transistors. 2138.
- Kröner, E. Analyse des allgemeinsten Verzerrungstensors. 1099.
- , Ekkehart. Spannungsfunktionen der drei dimensional anisotropen Elastizitätstheorie. 198.
- Spannungsfunktionen der dreidimensionalen isotropen Elastizitätstheorie. 546.
- Fundamentaler Zusammenhang zwischen Versetzungsdichte und Spannungsfunktionen. 731.
- Krönert, J. Paul (Gmelin 70 Jahre. 182.
- Kroepelin, H. s. Fritz, W. 200, 2434.

- Krogh-Moe, Jan s. Grjotheim, Kai.* 1824.
- Krohn, V. E. and Raboy, S.* Gyromagnetic ratio of an excited state and other angular correlation measurements for $\text{Pb}^{204\text{m}}$. 587.
- — Decay scheme of $\text{Pb}^{204\text{m}}$. 1361.
- s. *Raboy, S.* 587, 990, 1766.
- Królikowski, W. and Rzewuski, J.* Covariant one-time formulation of the many-body problem in quantum theory. 719.
- Kroll, Norman M. and Wada, Walter.* Internal pair production associated with the emission of high-energy gamma rays. 544.
- s. *Wichmann, Eyvind.* 540.
- Kromhout, O. M. s. Adler, R.* 852.
- Kromphardt, Karl.* Wo stehen wir Physiker? 2253.
- Kromrey, W.* Mathematische Korrektur einer durch experimentelle Bestimmung gefundenen Kurve. 1933.
- Krone, R. W. Baumann, N. P. and Prosser, F. W. jr.* Properties of some excited states in Mg^{24} . 1563.
- s. *Baumann, N. P.* 1137, 2390.
- Kronenberg, Stanley and Accardo, Carl A.* Dielectric changes in inorganic phosphors. 2538.
- Kronheimer, Erwin H.* Many-parameter wave functions in the independent-particle model. 539.
- Kronman, Marj in J. and Stern, Malvin D.* Light scattering investigation of the molecular weight of pepsin. 2082.
- Krook, M. s. Layzer, D.* 817.
- Krop, Stephen.* Toxicity and health hazards of rocket propellants. 2218.
- Kropfeld, R. E. W. s. Ornstein, L. Th. M.* 2367.
- s. *Sterk, M. J.* 2029.
- Kropfeld, R. E. W. s. Wapstra, A. H.* 2024.
- Krotkov, G. s. Vittorio, P. V.* 876.
- Krueger, G. C.* Quantitative phase contrast method for examining nonhomogeneous media. 156.
- Investigation of a quantitative phase contrast method for examining nonhomogeneous media. 914.
- Krüger, H. and Meyer-Berkhout, U.* Kernquadrupol-Resonanzfrequenzen von Cu-Kernen in polykristallinen Kupferverbindungen. 2109.
- und *Purcell, E. M.* Relaxationszeiten bei Kernresonanzmessungen. 646.
- Kruger, H. s. Becker, G.* 2008.
- , *Hubert und Meyer-Berkhout, Ulrich.* Bestimmung der elektrischen Quadrupolmomente der Kerne Rb^{85} und Rb^{87} durch Messung der Hochfrequenzübergänge im $6^2\text{P}_{3/2}$ -Term des Rb-Atoms. 1397.
- Krug, W.* Wiedergabe der Oberflächenstruktur durch Zweistrahl- als durch Mehrstrahlinterferenzen. 693.
- Kruger, Paul and Sugarman, Nathan.* High-energy fission of heavy elements. Nuclear charge dependence. 2018.
- , *P. Gerald s. Zimmerman, E. J.* 417.
- Kruglak, Haym.* Behavior objectives for laboratory instruction. 1919.
- Krumbein, A. D. s. Wiser, Herbert L.* 1119.
- Krumbiegel, J. und Jost, K.-H.* Leitfähigkeitsmessungen, spektrographische und röntgenographische Untersuchungen an Zinksulfidkristallen. 166.
- Kruse, U., Anderson, H. L. Davidson, W. C. and Glucksman, M.* Positive pion scattering by hydrogen at 189 Mev. 1386.
- s. *Heiberg, E.* 602.
- , *U. E. s. Anderson, H. L.* 1602.
- s. *Teem, J. M.* 976.
- Krzyszoblocki, M. Z. v.* Vortex-equation, in isentropic flow. 2290.
- Independent scalars in homogeneous turbulence in compressible media. 2292.
- Equations of the decay of isotropic turbulence in compressible fluid. 2293.
- and *Shinosaki, G.* Drag of some bodies in free molecule flow. 734.
- Ku, Han-Ying s. Dresselhaus, G.* 1860.
- Kubaschewski, O.* Ursache der Mischungswärmen und -entropien bei der Legierungsbildung. 549.
- Kubelka, W. s. James, D. B.* 929, 1515.
- Kubens, Rolf s. Jahr, Karl Friedrich.* 749.
- Kubo, Ryogo and Toyozawa, Yutaka.* Method of generating function applied to radiative and non-radiative transitions of a trapped electron in a crystal. 798.
- Application of the method of generating function to radiative and non-radiative transitions of a trapped electron in a crystal. 1892.

- Kuboki, Tadao.* KC-type magnetometer for direct-vision. Visually recording magnetometer. 2567.
- Kubota, Buichi and Okazaki, Chisato.* Multipolarization in the hexagonal barium iron oxide magnets. 2454.
- , *Hiroshi s. Nakamura, Hiuro.* 2521.
- *s. Sawaki, Tsukasa.* 2520.
- Kubozoe, T. s. Higashi, S.* 1178.
- , *Tadayoshi s. Kanekom, Shin-ichi.* 939.
- Kucenko, A. s. Belousov, A.* 2003.
- Kuczynski, G. C.* Strain sensitivity of AuCu and AuCu₃ alloys. 510.
- Relations between the modulus of rigidity and the surface and sublimation energies. 747.
- Effect of elastic strain on the electrical resistance of metals. 1852.
- and *Hochman, R.* Kinetics of ordering in AuCu alloys. 510.
- Küchler, L. s. Duch, E.* 1838.
- Küchler, R.* Regeln für Transformatoren VDE 0532. 2503.
- Kühn, A. s. Espe, W.* 1089.
- *W. s. Sittkus, A.* 2043.
- Kümmel, Fritz.* Verbesserung der Betriebseigenschaften von kondensator-erregten Ansynchronengeneratoren durch Sättigungsdrosseln. 2174.
- , *Hermann.* Quantentheoretische Begründung der Boltzmannschen Stoßgleichung. 754.
- Irreversibilität und Quantentheorie. 1117.
- Quantentheoretische Begründung der klassischen Physik. I. Dynamik der Gase und Flüssigkeiten. II. Statistische Mechanik und Thermodynamik. 1294.
- Kündig, W. s. Heer, E.* 1359.
- Kunkel, Hans A.* Strahlenschutzmaßnahmen gegen Verseuchung mit radioaktiven Isotopen. 346.
- Küpfmüller, Karl* 2256.
- Kuerti, G. s. Shankland, R. S.* 359.
- Küssner, H. G.* Theorie des elastisch-plastischen Kontinuums mit freier Oberfläche bei veränderlicher Belastung. 1727.
- Kuhlenkamp, A. und Schlemmermeier, R.* Fünfte Tagung Feinwerktechnik am 24. und 25. September 1953 in Bielefeld. 2257.
- , *Alfred.* Physik und Mathematik in der Feinwerktechnik. 1500.
- Kuhlmann-Wilsdorf, Doris.* Verfahren zur Messung kleiner Längenänderungen. 1303.
- Kuhn, H. Linus Pauling.* 894.
- Doppler-Effekt und spektroskopisches Auflösungsvermögen. 1677.
- *s. Höcker, K.-H.* 92.
- , *Lester P. s. Nisonoff, Alfred.* 1964.
- Kuhn, Werner.* Schweres Wasser. 2360.
- Kuhr, F. s. Braunersreuther, E.* 2276.
- , *Friedrich und Braunersreuther, Eberhardt.* Drehmomentmessung an einem Gleichstrommotor mit Hilfe des Halleffektes. 301.
- Kuijsten, L. H. and Rivière, J. J. la.* Measuring trolley for maintenance tests in carrier telephone systems with 4 kc/s carrier spacing. 1243.
- Kuiper, J. W. s. Grimes, D. M.* 2421.
- Kuipers, George A.* Infrared spectrum of hydrogen fluoride. 623.
- Kulenkampff, H. s. Kerscher, R.* 94.
- Kulikowski, R. and Plebanski, J.* Minimum stochastic signal distortions in low noise level circuits. 2513.
- Kulin, S. A. Kurtz, A. D. and Averbach, B. L.* Effect of dislocations on recombination of holes and electrons in germanium and silicon. 2128.
- *Kurtz, A. D.* 1653.
- Kulp, J. Laurence s. Volchok, Herbert L.* 59.
- Kumabe, Isao s. Hayashi, Takeo.* 2362.
- Kunagai, Hiroo. Abe, Hidetaro, Ono, Kazuo. Hayashi, Izuo, Shimada, Junji and Iwanaga, Kenzo.* Frequency dependence of magnetic resonance in α -Fe₂O₃. 2460.
- Kumar, Kailash and Preston, M. A.* Masses of nuclei in isobaric sequences. 947.
- Kunler, W. D. s. Strait, Louis A.* 157.
- Kundt, Heinz E.* Farbmetrische Probleme beim Farbenfernsehen. 2515.
- Kundu, D. N.* Collective model in the analysis of gamma rays. 64.
- *s. Cheng, L. S.* 580.
- , *M. R. s. Baral, S. S.* 1286, 2571.
- *s. Mitra, S. K.* 2246.
- Kunin, Robert and Myers, Robert J.* Exchange equilibria in anion-exchange resins: Porous exchangers. 383.
- Kunkel, W. B. and Gardner, A. L.* Ionization accompanying the long-lived nitrogen afterglow. 123?
- *s. Jones, R. F.* 1212.

- Kunz, W. E. Deuterium He^3 reaction. 53.
 — Butler, J. W. and Holmgren, H. D. Gamma rays from He^3 bombardment of deuterium. 1373.
 — s. Holmgren, H. D. 1373, 1583.
 — s. Moak, C. D. 1538.
 Kunze, P. und Schulz, G. Niederspannungszählrohre. 1975.
 Kuper, C. G. Spectrum of elementary excitations in superfluid helium. 1409.
 — s. Allcock, G. R. 723.
 —, J. B. H. s. Bernstein, W. 173.
 Kuppenheim, Hans F. s. Jacques, John A. 2192.
 Kurath, Dieter. Intermediate coupling in the lp shell. 401.
 — Intermediate coupling in the lp-shell. 2356.
 Kurbatov, J. D. and Downs, J. W. Relative stability of even-numbered isobars. 1779.
 — Murray, B. B. and Sakai, M. Energy levels of Se^{76} appearing in disintegration of As^{76} . 961.
 — s. Sakai, M. 67, 968.
 Kuriyama, Katsumi s. Miwa, Mitsuo. 1747.
 Kurnick, S. W. Strauss, A. J. and Zitter, R. N. Photoconductivity and photo-electromagnetic effects in InSb. 135.
 — s. Mitchell, G. R. 477.
 Kurnossowa, L. W. Streuung von Photonen verschiedener Energie an Elektronen. 1683.
 Kurosawa, Tatum s. Yamashita, Jiro. 1870.
 Kurs, A. F. s. Montet, G. L. 1388.
 Kursunoglu, Behram. Proton bremsstrahlung. 85.
 Transformation of relativistic wave equations. 1924.
 Kurth, R. Theory of spherical self-gravitating star systems in a steady state. 1281.
 — s. Freundlich, E. Finlay. 177.
 —, Rudolf. Gibt es eine statistische Mechanik der Sternsysteme? 1909.
 Kurti, N. et Halban, H. Radiations émises par des noyaux orientés à très basse température. 236.
 — s. Ambler, E. 2008.
 — s. Daniels, J. M. 2358.
 Kurtz, A. D., Kulin, S. A. and Averbach, B. L. Effect of dislocations on the minority carrier lifetime in semiconductors. 1653.
 Kurtz, A. D. s. Kulin, S. A. 2128.
 Kurtze, G., Tamm, K. und Vogel, S. Modellversuche zur Biegewellendämpfung an Ecken. 2303.
 — s. Tamm, K. 1956.
 Kurylenko, Constantin. Zones de Brillouin, conductibilité électrique des métaux et spectres d'absorption K des rayons X. 1464.
 — Zones de Brillouin, conductibilité électrique des métaux et spectres d'absorption K des rayons X. II. 1897.
 Kusaka, Riichiro s. Itoh, Junkichi. 1019, 2462.
 Kusch, P. Redetermination of the hyperfine splittings of hydrogen and deuterium in the ground state. 1611.
 — s. Heberle, Juergen W. 1611.
 — s. Miller, R. C. 1391.
 —, Polykarp. Magnetisches Moment des Elektrons. Nobelvortrag 1955. 2270.
 Kushida, Toshimoto s. Shimomura, Kenji. 1422.
 Kushner, Lawrence M. and Hubbard, Willard D. Viscometric and turbidimetric measurements on dilute aqueous solutions of a non-ionic detergent. 1200.
 Kuss, Eduard. Hochdruckuntersuchungen. III. Viskosität von komprimierten Flüssigkeiten. 15.
 — Viskosität-Druckverhalten von 26 Reinstanzen. 1941.
 Kussmann, A. und Wollenberger, J. H. Pulvermuster und Magnetisierungsvorgänge bei hochkoerzitiven Alnico-Magneten. 1898.
 —, Albrecht und Raub, Ernst. Antiferromagnetismus bei Mangan-Kupfer- und Mangan-Gold-Legierungen. 1846.
 Kusakawa, Ken-ichi. Shock wave in the elastic medium. 2294.
 Kuwabara, Goro. Image formed by lenses. I. Characteristics of an image and their quantitative representation. 1061.
 — Optical and electrical properties of cadmium sulphide films. 1226.
 — Image formed by lenses. II. Effect of spherical aberration on optical images. 1465.
 — and Isiguro, Kozo. Optical constants of ZnS films. 2540.
 Kwarzchawa, I. F. s. Bondarenko, W. W. 280.
 Kyles, J. s. Campbell, C. G. 2032.

L

- Laberrigue-Frolow, Jeanne et Lederer, Michel.* Étude des composantes du spectre β^- de ^{86}Rb . 1160.
- et *Marty, Nadine.* Énergie du premier niveau excité de ^{86}Kr . 1360.
- Labin, Edouard.* Systèmes compatibles de télévision en couleurs. 1672.
- Laboulaye, H. de, Tzara, C. et Olkowsky, J.* Études sur la fission de l'uranium à l'aide d'une chambre de Wilson automatisée. 2018.
- Labs, D. und Stock, J.* Lichtelektrisches Sternphotometer mit Wechselstromverstärkung. Lichtkurve des Bedekungsveränderlichen AK Herculis. 351.
- Laby, Jean E. s. Hopper, V. D.* 2340.
- Lacam, A.* Variations de la vitesse des ultrasons dans le propane en fonction de la température et de la pression. 1955.
- Lacam, A. s. Noury, J.* 921.
- , *André et Bergeon, René.* Célérité du son dans les gaz sous pression et coefficients du viriel. 1734.
- et *Noury, Jack.* Vitesse des ultrasons dans l'argon jusqu'à des pressions atteignant 950 atm. 377.
- Lacassagne, Antoine.* Advances in radiobiology between 1937 and 1950. 1078.
- et *Loiseleur, Jean.* Synthèses chimiques consécutives à l'action des rayons X. 1258.
- Lacerda, Mlle Leda et Brot, Claude.* Comportement diélectrique de l'acide bromhydrique solide à 10 000 MHz. 1237.
- Lachenbruch, S. H. s. Marton, L.* 1845.
- Lachowicz, S. K.* Relative solubility of hydrogen and deuterium in liquids at low temperatures. 2323.
- Ladage, A.* Elektroneninterferenzen an elektrolitisch polierten Oberflächen nach Kathodenzerstäubung. 1416.
- Ladell, Joshua, Post, Benjamin and Fankuchen, I.* Crystal structure of nickel carbonyl, $\text{Ni}(\text{CO})_4$. 2067.
- Ladenburg, R.* Interferometrische Messung von Grenzschichten an ebenen Platten bei Überschallgeschwindigkeit. 18.
- , *Voorhis, C. C. van and Winckler, J.* Interferometric studies of faster than sound phenomena. II. Analysis of supersonic air jets. 18.
- Ladu, M. s. Bonetti, A.* 930.
- Lafferty, D. L. s. Rayburn, L. A.* 970.
- Laforgue, Alexandre.* Diagrammes des triatomes symétriques. 782.
- *Calcul d'erreur en chimie quantique.* 1931.
- Lafoucrière, J.* Limites de validité du calcul par approximations successives des focalisations axiale et radiale dans les spectrographes β à prisme. 1981.
- Lagarrique, A. s. Aggson, T. L.* 2353.
- *s. Armenteros, R.* 939, 2352.
- , *L. s. Fretter, W. B.* 1134, 1334.
- , *Andre s. Ise, John jr.* 1800.
- Lagasse, Alphonse et Doyen, Jacqueline.* Vérification expérimentale de la théorie de Migdal. Cas du polonium (^{210}Po). 1536.
- , *P. E.* Mesures magnétiques au cours de la traction. 1473.
- Lagemann, Robert.* Comparison of the publication records of starred physicists and chemists. 1917.
- Lagergren, C. Robert.* Applications of rapid sweeping to a single-focusing mass spectrometer. 37.
- Lagerqvist, A., Nilsson, N. E. Lennart and Barrow, R. F.* Predissociation in the spectrum of AlO . 2053.
- , *Albin und Huldt, Lennart.* Träger der Flammenspektren der Erdalkalimetalle. 2057.
- und *Selin, Lars-Erik.* Bandenspektrum des Vanadiumoxydes. 2408.
- Lagrenaudie, J.* Comparaison des composés de la famille des MoS_2 . (Structure et propriétés optiques et électriques.) 825.
- , *Jean.* Propriétés électroniques du nitrure d'aluminium. 1855.
- *s. Gans, François.* 1649.
- Lai, J. R. s. Kregar, W. E.* 1159.
- Laing, W. s. Garden, Linda A.* 926.
- Laird, Alan D. K.* Measurement of the wavelengths of maximum intensity for X-ray tube spectra. 1456.
- Laity, Richard W. s. Duke, Frederick R.* 1656.
- Lakhanpal, M. L. and Puri, B. R.* Boiling point of capillary-condensed water. 2317.
- , *Sud, R. K and Puri, Balwant, Rai.* Influence of capillarity on the boiling point of water. 2317.
- Lakin, W.* Spin polarization of the deuteron. 977.

- Lal, D. s. Daniel, R. R.* 225, 1757.
- Lamarque, Paul.* Étude de la restauration après irradiation par rayons X. 705.
- LaMarre, David A.* Phase change considerations with multiple-beam fringes. 496.
- Lamb, W. E. jr s. Maiman, T. H.* 1397.
- , *Willis E. jr.* Feinstruktur des Wasserstoffatoms. Nobelvortrag 1955. 2403. 2255.
- Lambe, John.* Cadmium sulfide with silver activator. 2209.
- Lambert J. D., Cotton, K. J., Pailthorpe, M. W., Robinson, A. M., Scrivins, J., Vale, W. R. F. and Young, R. M.* Transport properties of gaseous hydrocarbons. 16.
- , *Fogg, P. G. T.* 740.
- , *s. Fox, J. H. P.* 1692.
- Lamberts, K.* Deutsche Rundfunk-, Phono- und Fernseh-Ausstellung Düsseldorf 1953. 2257.
- Lammel, Ernesto.* Interpolacion de funciones con dos variables. 1920.
- Lamont, K.* Square wave inductance bridge. 1844.
- Lamoral, Roger.* Mesure des coefficients d'absorption de matériaux acoustiques par la méthode de la chambre réverbérante. 741.
- Lampard, D. G.* Generalization of the Wiener-Khinchine theorem to non-stationary processes. 1708.
- Lampariello, Giovanni.* Propagazione delle onde elettromagnetiche nei corpi in moto. 1256.
- Lampert, Murray A.* Ground state of impurity atoms in semiconductors having anisotropic energy surfaces. 470.
- Lamphere, R. W. and Greene, R. E.* Neutron-induced fission cross sections of U^{234} and U^{236} . 1777.
- , *and Robinson, G. P.* Converted electron accelerator to produce 2.3-Mev positive ions. 1985.
- Lancaster, John E. and Colthop, Norman B.* s-triazine. III. Infrared spectrum. 1189.
- , *s. Crawford, Bryce L.* 431.
- , *s. Stamm, Robert F.* 2059.
- Landau, L. D., Abrikosov, A. and Halatnikov, L.* Quantum theory of fields. 1927.
- , *s. Belen'kii, S. Z.* 2349.
- Landauer, Joseph K.* Elastic moduli of tin at the superconducting transition. 469.
- Landauer, R. s. Drougard, M. E.* 1239.
- Landé, Alfred.* Quantum theory from nonquantal principles. 1714.
- Landecker, K.* Property of a family of equiangular spirals and its application to some problems of wave propagation. 1663.
- Landerl, H. s. Thury, W.* 2542.
- Landfermann, C. A.* Stand und Entwicklungstendenzen des deutschen Industrie-Ofenbaues. 2274.
- Landis, J. W.* Nature of nuclear power. 936.
- Landler, Yvan.* Amorçage des polymérisations. Influence du système de polymérisation sur la structure du polymère. 1837.
- Landmark, B.* Measurements of limiting polarization of radio waves reflected from the F-layer. 710.
- Landon, H. H.* Radiation widths in the slow neutron resonances of iridium. 1553.
- , Radiation widths in slow neutron resonances. 1553.
- , *and Sailor, V. L.* Radiation width variation in the neutron resonances of Eu and In. 958.
- , —, Radiation width variations in the slow-neutron resonances of europium and indium. 1364.
- , *s. Igo, G.* 2375.
- , *s. Sailor, V. L.* 409, 958.
- , *s. Wood, R. E.* 960.
- Landsbaum, E. M., Dodds, W. S. and Stutzman, L. F.* Humidity of compressed air. 1118.
- Landsberg, Max.* Theorie der linearen topologischen Räume. 2259.
- , *P. T.* Effect of field-dependent mobilities on the diffusion theory of rectification. 286.
- , Method of transition probabilities in quantum mechanics and quantum statistics. 1745.
- , Diffusion theory of rectification 2117.
- , Statistical mechanics of temperature-dependent energy levels. 2333.
- , *and Moss, T. S.* Recombination theory of indium antimonide. 2468.
- , *R. und Hollnagel, M.* Anodisches Verhalten des Nickels in Schwefelsäure. 836.
- Landwehr, Gottfried.* Einfluß des allseitigen Drucks auf die Driftbeweglichkeit von Defektelektronen in Germanium. 1430.

- Lane, A. M. and Verlet, L.* Polarization in the theory of the giant resonances of neutron scattering. 1597.
- and *Wandel, C. F.* Imaginary part of the potential in the optical model of the nucleus. 366.
- , — Evaluation of the imaginary part of the nuclear complex potential. 1169.
- and *Wilkinson, D. H.* Concept of parentage of nuclear states and its importance in nuclear reaction phenomena. 566.
- , *Thomas, R. G. and Wigner, E. P.* Giant resonance interpretation of the nucleon-nucleus interaction. 945.
- s. *Elliott, J. P.* 1299.
- s. *Wilkinson, D. H.* 566.
- , *C. T., Wheeler, R. G. and Blakewood, C. H.* Second sound attenuation in rotating helium II. 1196.
- s. *Dyba, R. V.* 448.
- s. *Wheeler, R. G.* 1828.
- , *J. A.* Measurement of power at a wavelength of 3 cm by thermistors and bolometers. 848.
- and *Saxton, J. A.* Dielectric dispersion in pure polar liquids at very high radio-frequencies. I. Measurements on water, methyl and ethyl alcohols. III. Effect of electrolytes in solution. 2169.
- , *P. E. s. Prowse, W. A.* 1234.
- , *R. O. s. Langsdorff, A. jr.* 1595.
- , *W., Fuller, R., Graham, L. and Mackin, J.* Contamination and decontamination of laboratory bench-top materials. 2559.
- Lang, A. R.* Design and performance of X-ray proportional counters. 1820.
- Versatile X-ray diffractometer for single-crystal and powder studies. 1820.
- s. *Atwater, H. A.* 2087.
- , *C. s. Eberhardt, P.* 569.
- s. *Hintenberger, H.* 1750.
- , *Ch. s. Hänni, F.* 1757.
- , *D. s. Thoracius, R.* 1693.
- , *F.* Breitbandübertrager für frequenz-unabhängige Widerstandsübersetzung. 2511.
- , *F. A. and Sturrock, R. F.* Semi-quantitative and quantitative spectrographic analysis using the Stallwood air-jet source. 493.
- , *Gerhard.* Röntgenspektralanalyse mit Zählrohranrichtungen. 1073.
- Lang, M.* Problem der industriellen Regelung vom Standpunkt des Betriebsingenieurs. 2277.
- , *Walter s. Köster, Werner.* 732.
- Lange, C. F. s. Kaiser, W.* 1652.
- , *E.* Anodische Prozesse an Metallelektroden, insbesondere beim chemischen und gesamtanodischen Polieren. I. Ausgewählte allgemeine Gesichtspunkte für Metallanoden. 666.
- Empirische und willkürliche Grundlagen von Maßen und Maßsystemen. 1932.
- und *Miederer, W.* Integrale Verdünnungswärme wäßriger Lösungen von Monochloressigsäure. 1316.
- , — Integrale Verdünnungswärmen wäßriger Lösungen von $\text{La}(\text{NO}_3)_3$, $\text{Ba}_3(\text{FeCy}_6)_2$, Mg_2FeCy_6 und LaFeCy_6 . 1511.
- und *Möhring, K.* Berücksichtigung des Eigenvolumens gelöster Ionen in der Ionenwolke in der Theorie der Verdünnungswärme von Elektrolytlösungen. 137.
- und *Rädlein, G.* Voltaspannungen an CdO-Anlaufsichten. 673.
- und *Schücker, J.* Galvanispannung zwischen Elektrolytlösungen mit einer Fesionenart und zur Membranspannung in entsprechenden Dreiphasensystemen. 137.
- s. *Brünner, H.* 666.
- , *Erich.* Chemische Potentiale von Gitterbausteinen. 257.
- Deutscher Zeitdienst. 903.
- Elektrochemische Grundbegriffe. II. Einfache Elektrode. 2141.
- und *Miederer, Walter.* Integrale Verdünnungswärmen wäßriger Lösungen von K_2FeCy_6 , K_4FeCy_6 und NiSO_4 bei 25 °C. 1317.
- , *F. H.* Strahlungsdruck-Leistungsmesser für Wellenleiter. 1875.
- , *H. und Kressin, G.* Einfluß der Kristallstruktur auf die Lumineszenz des Calciumsilikates (Mn, Pb). 862.
- , *H. de.* Decrease of the low-frequency signal-to-noise ratio when increasing the intermediate-frequency bandwidth, using a square-law or a linear A. M. detector. 1053.
- , *Horst.* Manganbanden und ihre Trennung im Lumineszenzspektrum vom Calciumsilikat (Mn, Pb). 326.

- Lange, Thomas.* Messung der Trittschall-dämmung von Decken mit sinusförmiger Erregung. 208.
- Lange-Hesse, G.* Erdmagnetische Unruhe und Durchschnittsabweichungen der F₂-Schicht-Tagesgrenzfrequenzen in verschiedenen geomagnetischen Breiten. 1910.
- , *Günther.* Systematische Untersuchungen über den Einfluß der erdmagnetischen Unruhe auf die Tagesgrenzfrequenzen der F₂-Schicht. 2246.
- Langendorff, H., Langendorff, M. und Sommermeyer, K.* Deutung des LD50-Anstieges mit steigender spezifischer Ionisation und die Reaktivierung sowie Sensibilisierung durch Wärme bei *E. coli*. 339.
- Langendorff, M. s. H. Langendorff.* 339.
- Langenecker, B. s. Blaha, F.* 2282.
- Langer, Heinrich.* Messungen von Erdspannungen in einem 220-kV-Umspannwerk. 2174.
- , *L. M., Lazar, N. H. and Moffat, R. J. D.* Disintegration of Sb¹²⁴. 61.
- *s. Cowan, C. L.* 2355.
- *s. Johnson, O. E.* 1157.
- *s. Plassmann, E. A.* 79.
- Langvin, H.* Rayonnements γ accompagnant la désintégration de ⁷⁷As. 242.
- *s. Murty, N.* 241.
- , *M., Allard, G. et Corbé, G.* Spectromètre à scintillation adapté aux études en coïncidence. 226.
- Lingford, F. L., Webb, R. A. and Rogers, F. T. jr.* Diffusion of uranyl nitrate activity through porous media. 631.
- Langham, Wright H. s. Brennan, James T.* 1694.
- Langille, R. C. s. Hay, D. R.* 677.
- , *W. M.* Spectrographic analysis studies of agricultural and related materials in Nova Scotia. 505.
- Langlois, Gordon E. s. Vermeulen, Theodore.* 1014.
- Langmann, Werner.* Sonolumineszenz wäBriger Gaslösungen. 1260.
- Langsdorf, A., Monahan, J. E. and Mooring, F. Paul.* Measurement of neutron transmission cross sections by a self-indication technique. 1379.
- , *Alexander jr. s. Hibdon, Carl T.* 958.
- , *A. jr. s. Monahan, J. E.* 1379.
- Langsdorf, A. jr. and Lane, R. O.* Angular distributions of scattering of moderate energy neutrons. 1595.
- Langseth, A.* Spectres infrarouges et Raman de molécules linéaires simples. 784.
- and *Møller, Chr. Knakkegaard.* Correlation of restoring coefficients in molecular potential functions and bond orders between the different atoms in polyatomic molecules. 901.
- Langue, Pierre.* Frottement interne dans les alliages ferro-magnétiques et ses conséquences chronométriques. 1304.
- Lannutti, J. s. Goldhaber, Gerson.* 1336.
- , *Joseph, Goldhaber, Gerson and Goldsack, Stephen J.* Stars formed by protons of 3.2 Bev from the bevatron. 1146.
- , *J. E. s. Iloff, E. L.* 1756, 2353.
- , *Joseph E., Chupp, Warren W., Goldhaber, Gerson, Goldhaber, Sulamith, Helmy, Ehsan, Iloff, Edwin L., Pevsner, Aihud and Ritson, David M.* Interaction of positive K-mesons. 1997.
- *s. Chupp, Warren W.* 1336, 1756.
- Lanterman, Elma s. Merritt, Lynne L. jr.* 2067.
- Lanza, G. s. Dallaporta, N.* 563.
- Laporte, Marcel.* Méthode nouvelle d'étude des phénomènes radioactifs: Ciné-nucléographie. 1120.
- Lappe, Rudolf.* Restionisation bei Quecksilberdampf-Entladungen. 2492.
- Larach, Simon and Turkevich, John.* Magnetic properties of zinc sulfide and cadmium sulfide phosphors. 1263.
- Larenz, R. W.* Magneto-Hydrodynamik kompressibler Medien. 466.
- Plasmaströmungen großer Amplitude und Ladungstrennung. 480.
- Entstehung der überthermischen kosmischen Radiofrequenzstrahlung. 879.
- Mechanismus der überthermischen kosmischen Radiofrequenzstrahlung. 1908.
- Lark-Horovitz, K. and Fritzsche, H.* Hall effect and resistivity of p-type germanium at low temperatures. 2124.
- *s. Becker, W. M.* 1031.
- *s. Buschert, R.* 110.
- *s. Fritzsche, H.* 1036, 2125.
- *s. Klontz, E. E.* 2473.
- *s. Schulz-DuBois, E.* 2125.
- *s. Stoeckmann, F.* 2124.
- Larmore, Lewis.* Infrared stellar magnitudes. 176.
- LaRocca, E. W.* Phase transformations in the microstructure of explosively loaded iron and steel. 1732.

- La Rocca, Edward, W.* Stress dependence of the activation energy of the rupture process. 511.
- Larose, P. s. Whitehead, S.* 2085.
- Larras, Jean et Laurent, Jean.* Etudes expérimentales sur la houle. Nouveau procédé de génération. 376.
- Larsen, S. H. H.* Vertical distribution of atmospheric ozone at Longyearbyen, Spitzbergen (78° N). 530.
- Larsh, A. E. s. Hyde, E. K.* 74.
- Larson, Q. V. s. Boyd, G. E.* 1779.
- Lascombe, Jean s. Josien, Marie-Louise.* 623.
- Laskar, Williams.* Détermination semi-directe des coefficients de fluorescence pour le niveau K de certains atomes par les mesures de largeurs de raies X. 1804.
- Laslett, L. J. s. Raka, E. C.* 1752.
- Lassen, N. O.* Total charges and electron capture cross-sections of fission fragments in gases. 2370.
- Lassette, E. N., Krasnow, M. E. and Silverman, S.* Excitation by electron impact of the optically forbidden transition $1^3S \rightarrow 2^1S$ in helium. 98.
- Lathrop, J. B.* Operations research. 893.
- Latter, Richard.* Temperature behavior of the Thomas-Fermi statistical model for atoms. 1719.
- Atomic energy levels for the Thomas-Fermi and Thomas-Fermi-Dirac potentials. 1803.
- Lattermann, Karl.* Kapillare Erscheinungen an der Kugel. Bestimmung der Oberflächenspannung von Flüssigkeiten. 2443.
- Lattimore, S.* Origin of single cosmic ray protons. 2043.
- Latitude effect of cosmic ray stars. 2045.
- Lau, C. La.* Anomalie dans les spectres d'absorption infrarouges de certains para-di-alkyl benzènes. 784.
- Lauber, A.* Plattenresonatoren als akustische Tiefton-Absorber. 1508.
- s. *Furrer, W.* 744.
- Laubitz, M. J.* Beta decay of the ground state of ^{26}Al . 593.
- Lauderdale, R. A. and Emmons, A. H.* Decontamination of small volumes of radioactive water. 2230.
- Laudet, Michel.* Optique électronique des systèmes cylindriques présentant un plan de symétrie. I. Approximation du premier ordre. 165.
- Laudet, Michel.* Intégrations numériques de l'équation des trajectoires électrostatiques. 325.
- Optique électronique des systèmes cylindriques présentant un plan de symétrie. II. Aberrations. III. Cas particulier d'un système électrostatique pur. 2536.
- Laue, M. v. s. Friedrich, W.* 535.
- Lauer, Eugene J. s. Hubbard, Edward L.* 618, 1166.
- Lauff, G. H. s. Anderson, D. V.* 711.
- Laughlin, J. S.* 23-MeV medical betatron. 1080.
- , *Beattie, J. W., Henderson, W. J. and Harvey, R. A.* Calorimetric evaluation of the roentgen for 400 kv. and 22,5 Mev. roentgen rays. 2557.
- s. *Genna, S.* 1982.
- , *John S. s. Littman, Armand.* 2226.
- Laukien, G.* Anregung freier Präzissionen kernmagnetischer Momente. 2105.
- , *Günter.* Messung kernmagnetischer Relaxationszeiten aus freien Präzisionsbewegungen. 2105.
- Laurent, Jean s. Larras, Jean.* 376.
- Lauric, K. A. s. Warren, J. B.* 66.
- Laurikainen, Kalervo V. and Euranto, Erkki K.* Numerische Behandlung der Schrödinger-Gleichung im Falle des Yukawa-Potentials. 537.
- Laurila, Erkki.* Thermoelectric properties of the impurity semiconductors. 2468.
- Lauritsen, C. C. s. Barnes, C. A.* 581
- s. *Peterson, R. W.* 409.
- s. *Webb, T. S.* 601, 1588.
- , *T. s. Ajzenberg, F.* 771.
- Lauterjung, K. H. s. Faissner, H.* 2044.
- s. *Niklas, L.* 395.
- Lautz, G. und Ruppel, W.* Magnetische Widerstandsänderung von Ge-Einkristallen zwischen 10° und 300° K. 130.
- , *Günter s. Harbeke, Bünster.* 2469.
- Lauwerier, H. A. s. Deemter, J. J. van* 2289.
- Laval, J.* Théorie de la diffusion des rayons X par les cristaux. I. II. 2416.
- , *Jean.* Intensité des rayons X diffusés par l'agitation thermique des atomes. 793.
- Lavalle, D. E. s. Roberts, L. D.* 2457.
- Laver, F. J. M.* Technical factors affecting point-to-point radiocommunication systems. 674

- Laver, F. J. M. and Stanesby, H.* Experimental test of reciprocal transmission over two longdistance high-frequency radio circuits. 2176.
- Lavet, Marius.* Aorloges électriques à régulation de vitesse par pendules coniques. 904.
- Petits moteurs magneto-électriques à mouvement pendulaire et rotation continue fonctionnant sans contact électriques intermittents. 1229.
- Lavier, E. C., Hanna, S. S. and Gelinus, R. W.* Alpha spectrum from Li^7 (p, γ)- $\text{Be}^8(x)\text{He}^4$. 1367.
- Laville, Gaston s. Cerf, Roger.* 1833.
- Lavine, Louis R.* Zu: Grison's paper on the Harker-Kasper inequalities and to Zachariasen's paper on the statistical method. 1002.
- Law, J. T.* Adsorption of water vapor on germanium and germanium dioxide. 1117.
- Adsorption of gases on a germanium surface. 2118.
- Lawden, D. F.* Theory of sampling servo systems 1725.
- Optimal programming of rocket thrust direction. 1950.
- Optimal transfer between circular orbits about two planets. 2296.
- Lawlor, G. s. Anderson, F.* 562, 937.
- s. *Davies, J. H.* 763.
- Lawrance, R.* Temperature dependence of the drift mobility of injected holes in germanium. 287.
- , *E. O. s. Foster, John S. jr.* 1934.
- , *W. s. Nelson, E. B.* 64.
- Lawson, A. W. s. Nachtrieb, N. H.* 2426.
- , *Hampden C., Coleman, Everett S. and Adams, Samuel.* Multicelled sample container for the rapid counting of P^{32} in blood. 1077.
- , *J. D., Barton, R. S., Gubbins, T. F., Millar, W. and Rogers, P. S.* Design and performance of a high power demountable klystron amplifier for X-band. 1250.
- s. *Adams, J. B.* 1986.
- , *James R. s. Fuson, Nelson.* 624.
- , *J. S. jr. and Frauenfelder, H.* Correlation for finite angular resolution in directional correlation measurements. 76.
- , *R. D.* Electric multipole moments in π - π coupling. 1533.
- Lawson, R. D.* Low-energy neutron scattering and the boundstate problem. 1597.
- Bound states and low-energy neutron scattering. 2391.
- , *Robert W. s. McCrea, W. H.* 1089.
- , *W. D., Nielsen, S., Pulley, E. H. and Roberts, V.* Preparation, electrical and optical properties of Mg_2Sn . 290.
- Lax, Benjamin and Mavroides, J. G.* Statistics and galvanomagnetic effects in germanium and silicon with warped energy surfaces. 1855.
- and *Roth, Laura M.* Propagation and plasma oscillation in semiconductors with magnetic fields. 821.
- , — Propagation and plasma oscillation in semiconductors. 1649.
- , *Zeiger, H. J. and Dexter, R. N.* Anisotropy of cyclotron resonance in germanium. I. Theory. 131.
- s. *Dexter, R. N.* 131, 1853, 1857, 1858.
- , *Louis C. and Wrenshall, Gerald A.* Simultaneous rates of phosphorus transfer between fifteen compartments within the rat. 697.
- , *M. s. Burstein, E.* 2123.
- , *Melvin s. Gummel, Hermann.* 500.
- s. *Lehmann, William L.* 360.
- , *M. s. Rosenberg, R.* 1649.
- s. *Teitler, S.* 2124.
- , *Melvin.* Localized perturbations. 1301.
- Theory of mobility. 1720.
- and *Burstein, Elias.* Broadening of impurity levels in silicon. 1651.
- and *Lebowitz, Jeol L.* Moment singularity analysis of vibration spectra. 2418.
- Layzer, D., Krook, M. and Menzel, D. H.* Torsional oscillations and solar magnetic fields. 817.
- , *David.* Yellow emission line of the solar corona. 706.
- Layton, D. N. s. Evans, D. M.* 1728.
- Lazar, N. H. and Klema, E. D.* Decay of Bi^{207} . 962.
- , — Decay of Bi^{207} . 1155.
- , *Eichler, E. and O'Kelley, G. D.* Nuclear levels in Sr^{88} from the disintegration of Rb^{88} and Y^{88} . 1572.
- s. *Langer, L. M.* 61.
- s. *O'Kelley, C. D.* 2023.
- Lazarus, John P. and Sack, S.* Agreement of classical and quantum Coulomb excitation integrals. 1567.
- , *A. J. s. Masek, G. E.* 1524.
- , *J. P. s. Daitch, P. B.* 82.
- s. *Gluckstern, R. L.* 1570.

- Lazerson, R. s. *Rall, J. E.* 2557.
- Lazzarini, E. s. *Bertolini, G.* 937, 2025, 2032.
- Leach, Sydney. Experimental value of the force constant of the SH radical. 1185.
- , S. J. s. *Bates, L. F.* 816.
- Leachmann, R. B. Emission of prompt neutrons from fission. 2019.
- and *Schafer, W. D.* Calorimetric determination of the average kinetic energy of the fragments from U²³⁵ fission. 1354.
- and *Schmitt, H. W.* Fine structure in the velocity distributions of slowed fission fragments. 1545.
- Leadabrand, R. L. s. *Peterson, A. M.* 522.
- Leaderman, Herbert. Rheology of polyisobutylene. I. Theory and experimental procedures. 265.
- Nonlinear viscoelastic behavior of rubber in shear. 1631.
- Leak, G. M. s. *Thomas, W. R.* 867.
- Leake, L. E. and *Turkdogan, E. T.* Construction and calibration of a Bunsen ice-calorimeter. 1314.
- s. *Turkdogan, E. T.* 1936.
- Leamer, R. D. and *Hinman, G. W.* Internal conversion in Ne²². 80.
- Lean, R. M. s. *Eisberg, L. M.* 979.
- Leavitt, Christopher P. s. *Chen, Francis F.* 1589.
- , W. Z. s. *Senftle, F. E.* 238.
- Lebas, Mlle Jeanne-Marie et *Josien, Mlle Marie-Louise.* Etude des dérivés monosubstitués du benzène par spectroscopie infrarouge. III. Essai d'interprétation des variations de fréquences C—H avec l'environnement moléculaire. 1402.
- s. *Josien, Mlle Marie-Louise.* 1402.
- Lebeau, Paul, Foëx, Marc, *Cheydan Etienne* et *Chaigneau, Marcel.* Fusion au four solaire d'oxydes d'uranium de forte densité. 1963.
- Lebel, Jean D. s. *Loeb, Julien.* 195.
- LeBlanc, J. M., *Bollinger, L. M.* and *Colé, R. E.* Neutron transmission measurements on Br and Se. 1383.
- , *Cork, J. M.* and *Burson, S. B.* Radioactivities of Zn⁶⁹ and Zn⁷¹. 585.
- , —, — Decay of the 3.5-min metastable state of Sb¹²². 956.
- s. *Bollinger, L. M.* 1123.
- s. *Burson, S. B.* 69, 597, 1158.
- s. *Cork, J. M.* 60.
- s. *Jordan, W. C.* 581.
- Leblond, A. et *Mourier, G.* Etude des lignes à barreaux à structure périodique. 304.
- Leboeuf, M. B. s. *Miller, D. G.* 2339.
- s. *Upson, U. L.* 2343.
- Lebowitz, Joel and *Bergmann, Peter G.* Statistical ensemble representing stationary non-equilibrium states. 33.
- , *Joel L.* and *Gross, E. P.* Quantum theory of dielectric relaxation. 673.
- s. *Frisch, Harry L.* 2333.
- s. *Lax, Melvin.* 2418.
- Lecamp, M. et *Sicard, A.* Mesure de la vitesse de combustion par la méthode de la bulle de savon. 1117.
- Leck, J. H. and *Martin, C. S.* Pirani gauge for operation up to a pressure of 10 mm of mercury. 1722.
- and *Riddoch, A.* Observations on the characteristics of the cold cathode ionization gauge. 1721.
- LeClaire, A. D. and *Lidiard, A. B.* Correlation effects in diffusion in crystals. 2427.
- LeClair, T. G. Present feasibility of a nuclear power plant. 1519.
- Lecoq, A. s. *Galperin, B.* 1723.
- Lecomte, J. Méthode des poudres pour l'obtention des spectres d'absorption infrarouges: ses possibilités et ses difficultés. 1627.
- , *Ceccaldi, M.* et *Roth, E.* Dosage isotopique de l'eau par mesure d'absorption dans l'infrarouge. 765.
- Ledbetter, Nasira F. s. *Branson, Herman.* 623.
- Leder, Lewis B. and *Marton, L.* Cross sections for the characteristic energy loss of electrons. 1393.
- , *Mendlowitz, H.* and *Marton, L.* Comparison of the characteristic energy losses of electrons with the fine structure of the X-ray absorption spectra. 2402.
- Lederman, L. M. s. *Ammiraju, P.* 1386.
- s. *Rinehart, M. C.* 1602, 1603.
- s. *Sargent, C. P.* 1344, 1526.
- , *M. s. Blumenfeld, H.* 1132.
- Lederer, Michel s. *Laberrieque-Frolow, Jeanne.* 1160.
- Ledinegg, E. and *Urian, P.* Theorie der Eigenschwingungen isotroper elastischer Medien. 372.
- Magnetisches Verhalten einer linearen Atomkette am absoluten Null-

- punkt bei positivem Austauschintegral. 814.
- Ledinegg, Ernst und Urban, Paul.* Bestimmung der Durchlaßbreite von Bandfiltern im Zentimeterwellengebiet. 1248.
- Ledley, B. and Riddiford, L.* Determination of proton synchrotron beam size with a crystal scintillator. 233.
- LeDuc, J.-Arrien s. Doucet, Yves.* 2321.
- Lee, C. Y. et Wilke, C. R.* 755.
- , *E. B. s. Keister, G. L.* 583.
- , *E. H. s. Glauz, R. D.* 2284.
- , *Emerson, H. s. Hackerman Norman.* 2499.
- , *J. C. s. Schlegel, R.* 514.
- , *John F.* Specific heat of gases at the critical point. 2308.
- , *Kiuck and Green, Alex E. S.* Diffuse boundary IPM mass surface. 567.
- , *s. Green, A. E. S.* 1346, 1497.
- , *L. L. jr. and Inglis, D. R.* Energy levels in Be^9 . 1551.
- and *Rall, Waldo.* Angular distributions for $\text{Ti}^{16,18}(\text{d}, \text{p})\text{Ti}^{17,49}$ reactions with 4.16-Mev deuterons. 2036.
- , *Po and Weissler, G. L.* Absorption cross section of helium and argon in the extreme ultraviolet. 1885.
- , — Photo-ionization cross-section of neon. 2051.
- , *R. J. and Fowler, R. G.* Electrical characteristics of low-pressure spark discharges. 1045.
- , *T. D.* Absorption experiments involving heavy mesons. 1756.
- and *Orear, J.* Speculations on heavy mesons. 1992.
- and *Yang, C. N.* Conservation of heavy particles and generalized gauge transformations. 1298.
- , — Mass degeneracy of the heavy mesons. 2349.
- , *s. Friedmann, M. H.* 245, 2040.
- , *s. Henley, E. M.* 235.
- , *s. Winsor, L. P.* 1049.
- Lee-Whiting, G. E.* β spectrum of Bi^{210} (RaE) and the coupling constants of scalar and tensor interactions in β decay. 594.
- X-ray absorption linewidth and electron stopping power calculated with a screened Coulomb interaction. 2405.
- Leech, J. W.* Influence of retardation on the London — van der Waals forces. 1185.
- Leech, J. W. and Manuel, A. J.* Magnetic properties of some anhydrous chlorides of the iron group. I. Magnetic resonance. II. Cryomagnetic anomalies in CoCl_2 , FeCl_2 , NiCl_2 and CrCl_3 . 1847.
- Leeden, P. van der.* Hard showers. 248.
- Critical points. 2454.
- , *Nio, Liem Djan and Suratman, P. C.* Velocity of free falling droplets. 2295.
- Leenov, Daniel, Haskin, D. M. and Schein, Marcel.* Hyperfragments in light elements produced by the Berkeley bevatron. 1993.
- , *s. Schein, M.* 1997.
- Lees, C. S. s. Little, K.* 1687.
- , *J. and Walton, S.* Surface states on germanium. 1431.
- Leeser, D. O. s. Sutton, C. R.* 1127.
- Leeuwen, C. J. van s. Wijngaarden, J. G. van.* 2180.
- , *J. M. J. van s. Cohen, E. G. D.* 2336.
- Lefebvre, Harlan W., Kinderman, Edwin M. and Truyl, Harold H. van.* Gamma rays in the neptunium-239 decay. 2032.
- Lefebvre, Roland et Moser, Carl M.* Interaction de configuration comme méthode de calcul des orbitales moléculaires du champ self-consistent. I. Etats à couches complètes. Cas des hydrocarbures conjugués alternants paires. 1812.
- Lefèvre, P.* Extension de la méthode du diagramme de phase généralisé dans l'étude de la stabilité des systèmes linéaires. 2513.
- Lefort, M. s. Cottin, M.* 612, 1904.
- , *Marc et Douzou, Pierre.* Oxydation photochimique d'ions ferreux en solution aqueuse. Etude de la réaction inverse, réduction par l'hydrogène atomique. 2533.
- Legagneur, C. Salmon s. Crosswhite, H. M.* 1460.
- Leger, E. E. s. Millard, B.* 1959.
- Legrand, Ch.* Groupe spatial de la cellulose. 2083.
- , *Maurice.* Spectres d'absorption de la benzoquinazoline linéaire et de quelques dérivés monosubstitués. 438.
- , *s. Fabian, Mlle Joyce.* 627, 2059.
- Lehman, G. W.* Computation of electron density and density of states in narrow lands in crystals. 902.
- Energy band calculations in f. c. c. thorium. 1625.

- Lehmann, H.* Entwicklungen auf dem — Strahlungskorrekturen zur Mesonerzeugung durch Photonen. 1996.
- , *I.* Reliability of European seismological stations. 2584.
- , *J. s. Burger, H.* 1694.
- , *K., Schulze, H. und Winde, B.* Nachleuchten von Stickstoffmolekülen bei Atmosphärendruck. 2494.
- , *R.* Fehlerquellen beim Messen. 1721.
- , *s. Chayasse, P.* 1733.
- , *Willi.* Frequency dependence of electroluminescent brightness of impurity-quenched phosphors. 2538.
- , *William L. and Lax, Melvin.* Phase space description for the multiple scattering of waves. 360.
- Lehnert, B.* Instability of laminar flow of mercury caused by an external magnetic field. 735.
- Lehovec, K., Soled, J., Koch, R., MacDonald, A. and Stearns, C.* Apparatus for crystal pulling in vacuum using a graphite resistance furnace. 823.
- , *Kurt, Marcus, Alma and Schoeni, Kurt.* Theory of the magnetic rectifier. 1229.
- , —, — Forward characteristic of a point contact rectifier. 2135.
- Leib, O.* Permanent-Viskosimeter, ein direkt anzeigendes, registrierendes und auch regelndes Kapillarviskosimeter. 1942.
- , *Otto.* Permanent-Viscosimeter nach Leib. 2286.
- Leibfried, G. s. Haasen, P.* 1940.
- *s. Müller, H.* 200.
- , *Günther und Dietze, Horst-Dietrich.* Versetzungsstrukturen in kubisch-flächenzentrierten Kristallen. I. II. 2071.
- und *Schlömann, Ernst.* Wärmeleitung in elektrisch isolierenden Kristallen. 2312.
- Leibowitz, H.* Effect of reference lines on the discrimination of movement. 1476.
- , *Herschel.* Observations and theory on the variation of visual acuity with the orientation of the test object. 699.
- , *H. W., Myers, Nancy A. and Grant, D. A.* Radial localization of a single stimulus as a function of luminance and duration of exposure. 700.
- Leidheiser, Henry jr.* Mechanism of leveling during the electrodeposition of nickel in the presence of organic compounds. 665.
- Leidheiser s. Buck III, W. Roger.* 695.
- Leigh, R. S.* Augmented plane wave and related methods for crystal eigenvalue problems. 2272.
- Leighton, Hope I. and Billings, Donald E.* Solar H α filaments and geomagnetic disturbances. 2560.
- , *R. B. s. Sorrels, J. D.* 1997, 1998.
- *s. Trilling, G. H.* 1997.
- Leinhardt, T. E. and Reynolds, J. M.* Small electromagnet for low-temperature magnetic measurements. 645.
- Leipuner, L. s. Stearns, M.* 47, 397, 940.
- Leiss, J. E., Penner, S. and Robinson, C. S.* Photoproduction of π^+ mesons from hydrogen near threshold. 1343.
- , *Robinson, C. S. and Penner, S.* Photoproduction of π^+ mesons from hydrogen near threshold. 1340.
- Leist, K. und Dettmering, W.* Turbinenschaufeln aus Kunststoff für Kaltluftuntersuchungen. 2297.
- Leistner, Manfred.* Absoluter Wirkungsgrad einer Zählrohrmessung zur Absoluteichung radioaktiver Isotope und für andere quantitative Untersuchungen. 35.
- *4 π -Zähler und Messungen zur Absolutbestimmung geringer spezifischer Aktivitäten energiearmer Strahler.* 2337.
- Leite, R. J. s. Howe, R. M.* 463.
- Leiterer, Lothar.* Regelkreis eines selbstabgleichenden Photometers unter besonderer Berücksichtigung COULOMBscher Reibung. 685.
- Leivo, W. and Smoluchowski, R.* Color centers in KCl crystals produced by high-energy protons. 2424.
- , — Semiconducting diamond. 1224.
- Lejay, R. P. Pierre.* Rôle des mesures pendulaires dans l'établissement du réseau gravimétrique mondial. 1084.
- , *P. and Lepechinsky, D.* Field intensity at the receiver as a function of distance. Effect of the ionic distribution on the unabsorbed field intensity as a function of the distance to the transmitter. 2184.
- Lejkin, E., Osokina, R. and Ratner, B.* Photoprotons from copper and nickel. 2017.
- Lely, J. A.* Darstellung von Einkristallen von Siliciumcarbid und Beherrschung von Art und Menge der eingebauten Verunreinigungen 795.

- Lemaire, H. P. and Livingston, R. L.* Molecular structure of 1,1,2,2-tetramethylcyclopropane. 2054.
- Leman, Gérard et Lepoutre, Gérard.* Effet thermoélectrique en solutions électrolytiques. II. Calcul des entropies absolues de transport. 654.
- Lemanceau, Bernard s. Joussot-Dubien, Jacques.* 1844.
- Lement, B. S.* Papers on martensitic transformations published in the USSR. 170.
- Lemmer, H. R., Segaert, O. J. A. and Grace, M. A.* Decay of cobalt 57. 75.
- *s. Ambler, E.* 2008.
- *s. Bishop, G. R.* 237.
- Lemmlein, G. G.* Aufdeckung des überfeinen Reliefs auf Kristallgrenzflächen mit der Methode des Betauens. 805.
- Lemonick, A. s. Christensen, R. L.* 1612.
- *s. Reynolds, J. B.* 1808.
- , *Aaron and Pipkin, Francis M.* Spin and hyperfine splittings of Ag^{111} and Cu^{64} . 1347.
- Lempicki, A.* Origin of secondary emission electrons. 2173.
- and *Wood, C.* Form of breakdown in germanium diodes. 293.
- Lengyel, B. A. s. Berk, A. D.* 2510.
- Lenk, A. s. Reichardt, W.* 2300.
- Lennard-Jones, Sir John s. Hurley, A. C.* 2053.
- Lenoble, J.* Adaptation d'un multiplicateur d'électrons à un spectrographe plaques. 2193.
- , *Mlle Jacqueline.* Etude du rayonnement ultraviolet solaire, de sa diffusion dans l'atmosphère et de sa pénétration dans la mer. I. II. III. 1487, 1488.
- , *Jacqueline.* Application de la méthode de Chandrasekhar à l'étude du rayonnement diffusé dans le brouillard et dans la mer. 1488.
- *s. Chanu, Jacques.* 1830.
- Lenoir, Marcel.* Théorème de régularité dans la dernière théorie d'Einstein. 2264.
- Lenormant, H.* Spectre I. R. et la structure des acides aminés à l'état sec et en solution aqueuse. 2059.
- *s. Loze, C. de.* 1408.
- Lenouvel, F.* Propriétés et possibilités des cellules photoélectriques à multiplicateurs d'électrons. 308.
- Lenz, Friedrich.* Berechnung der elektronen-optischen Kenngrößen eines speziellen magnetischen Linsenfeldes ohne numerische Bahnintegrationen. 2205.
- and *Hahn, Max.* Experimentieren am Elektronenmikroskop. 1259.
- Leo, W.* Koma-Behebung bei Spektrometern mit sphärischen Hohlspiegeln. 1459.
- Leonhardt, B. P. jr. s. Little, R. N.* 980.
- Leone, F. C. s. Shankland, R. S.* 359.
- Leonhard, A.* Ausschlagabhängigkeit relaisgesteuerter Stellmotore. 2277.
- Leonhard, F.* Spektrometrie von Elektronen-Interferenzen. I. Elektronen-optischer Strahlengang zur Geschwindigkeits-Analyse. 164.
- Leontic, B. and Wolfendale, A. W.* Anomalous scattering of μ -mesons in lead. 2042.
- Lepechinsky, D. s. Lejay, P.* 2184.
- Lepore, Joseph V. and Neuman, Maurice.* Statistical model for high-energy events. 949.
- *s. Fernbach, Sidney.* 414.
- Lepoutre, Gérard s. Leman, Gérard.* 654.
- *s. Moreau, Charles.* 139.
- Leprince-Ringuet, L. s. Amaldi, E.* 235.
- *s. Armenteros, R.* 939, 2352.
- *s. Crussard, J.* 393, 2000.
- *s. Hoang, T. F.* 1136.
- Leroux, Jean.* Préparation de films par une technique au mercure pour la microscopie électronique. 2449.
- *s. Brun, Edmond.* 27.
- Lerp, K.* Adolf Bestelmeyer 80 Jahre. 1489.
- Lesch, G.* Höchstspannungen. 1490.
- Einflüsse und Entwicklungen in der amerikanischen Elektrotechnik. 2502.
- Leschi.* Télévision en couleurs. 1672.
- Lesko, Roman C. s. Russell, Edwin R.* 2230.
- Leslie, R. T. and Armstrong, L. D.* Design of gratitudes and reference marks, and some factors in the operation of scientific instruments. 1302.
- Letaw, Harry jr. and Bardeen, John.* Electrolytic analog transistor. 825.
- *s. Portnoy, William, M.* 2126.
- Letort, Maurice et Petry, Julien.* Essai d'interprétation de la formation des polyacétaldéhydes par cristallisation polymérisante de l'acétaldéhyde liquide. 804.
- *s. Debiais, Louis.* 846.
- *s. Fillet, Pierre.* 1888.

- Leuba, P.* Étude théorique du fonctionnement du dernier étage d'un photomultiplicateur. 1675.
- Leube, Inge, Restle, Heinz und Wiedemann, Malene.* Molekulargewichtsbestimmung von Peptiden durch UV-Spektroskopie. 871.
- Leuenberger, F. s. Baldinger, E.* 463.
- Leutz, Heinrich.* Röntgenverfärbung sensibilisierter KBr-, KBr(Ag)- und KCl-Kristalle bei verschiedenen Quantenenergien. 2423.
- Levengood, W. C.* Moisture condensation patterns on glass and crystalline surfaces. 112.
- Lévéque, P. et Goenvec, H.* Dosage d'éléments par radioactivité induite à période courte. 578.
- et *Martinelli, P.* Utilisation industrielle du rayonnement de freinage. 1983.
- *s. Coriou, H.* 2486.
- Levi, D. L. s. Gross, P.* 2310.
- , *D. W. s. Chinai, S. N.* 2082.
- , *Hilde and Hogben, Anne S.* Quantitative beta track autoradiography with nuclear track emulsions. 1748.
- , *L.* Osservazioni sopra il processo di accrescimento a spirale in cristalli di bifosfato di ammonio (ADP). 1406.
- Levin, J. S. and Hughes, D. J.* Radiation widths of nuclear energy levels. 1152.
- , — Flux depression and self-protection in the production of radiocobalt. 2348.
- , — Radiation widths of nuclear energy levels. 2378.
- *s. Cranberg, L.* 1567.
- , *M. L.* Passive Strahlersysteme in Hohlrohrleitungen. 1876.
- , *S. B., Field, N. J., Plock, F. M. and Merker, L.* Optical properties of strontium titanate crystal. 1627.
- , *S. Benedict s. Keck, P. H.* 1625.
- Levine, Albert K. s. Levy, Sidney.* 155.
- , *Charles A. s. Mathur, Hirdaya B.* 73.
- LeVine, H. D.* Go, no-go radiation detector. 222.
- Levine, Morton A. s. Bostick, Winston H.* 145.
- , *M. M. s. Cabrera, N.* 2420.
- , *S. s. Hoskin, N. E.* 810.
- , *S. H., Bender, R. S. and McGruer, J. N.* Angular distributions of deuteron-induced reactions in lithium. 54.
- Levinger, J. S.* Sum rules for photodisintegration of the deuteron. 576.
- Levinger, J. S.* Velocity-dependent nuclear potential. 1173.
- Effets des désintégrations radioactives sur les électrons des couches internes de l'atome. 1793.
- *s. Payne, W. B.* 1614.
- Levinson, Carl and Ford, Kenneth W.* Independent particle model of the nucleus. I. Interparticle forces and configuration mixing. III. Calcium isotopes. 1760, 1761.
- *s. Ford, Kenneth W.* 1761.
- , *Carl A.* Nuclear configuration interaction with singlet two-body forces. 1156.
- Levitan, Ilana.* Determination of tin in bismuth. 2212.
- Levitas, A., Wang, C. C. and Alexander, B. H.* Energy gap of germanium-silicon alloys. 650.
- Levitt, L., Tauber, G. E. and Wu, T. Y.* Energy levels of H⁻. 994.
- , *Leonard S.* Role of magnesium in photosynthesis. 876.
- Levy, Arthur L.* Ionic hydration and Stokes' law. 2430.
- , *F. s. Dilworth, C. C.* 1977.
- , *Henri A. and Peterson, S. W.* Neutron diffraction study of the NaCl-type modification of ND₄Br and ND₄I. 794.
- *s. Peterson, S. W.* 105.
- , *M. and Metzger, M.* Effect of heat treatment on the internal friction of aluminium crystals. 334.
- and *Szwarc, M.* Methyl affinities of aromatic compounds. 996.
- *s. Birnbaum, H.* 2283.
- , *Paul W. s. Rosenwasser, Hyman.* 1824.
- , *Sidney and Levine, Albert K.* Preparation of phosphor screens for color television tubes. 155.
- Levy-Pascal, Arie E. s. Maron, Samuel H.* 2439.
- Lewartowicz, Eugène.* Mécanisme de l'oxydation et de la réduction électrolytiques dans quelques systèmes réversibles. 831.
- Étude théorique de la surtension dans les systèmes d'oxydo-réduction. 2149.
- Étude expérimentale de la surtension dans quelques systèmes d'oxydo-réduction. 2149.
- Mesures de la surtension dans les systèmes d'oxydo-réduction. 2149.
- Lewin, B. H. s. Fessler, H.* 1100.

- Lewin, L.* Electromagnetic radiation from wave-guides and horns. 155.
 — *s. Craven, G.* 1879.
- , *M. L. und Rytow, Ss. M.* Thermische Ausstrahlung einer dünnen gradlinigen Antenne. 306.
 —, *S. Z. s. Mitzner, Bernard M.* 1678.
- , *W. I.* Abschätzung der Genauigkeit der asymptotischen Zerlegung einer Funktion. 536.
- Lewis, Wm. Bradley.* Isotope production: How to choose irradiation time. 1129.
- , *C. L., Ott, W. L. and Hawley, J. E.* Spectrochemical analysis of refined rhodium. 504.
 —, *C. R. s. Teague, D. M.* 2210.
- , *D.* Microbeam back-reflexion X-ray camera. 792.
 —, *G. M.* Decay of RaD and the 46.5 keV excited state of RaE. 51.
 — Natural radioactivity of rubidium. 2009.
s. Azuma, R. E. 1150.
- , *s. Ferguson, A. T. G.* 2349.
- , *H. W. s. Bernstein, E. M.* 1794, 2028, 2373.
s. Olness, J. W. 1371.
- , *Isabel E. s. Hughes, J. W.* 1472.
 —, *John E. s. Plump, Robert C.* 1124.
 —, *J. H. s. Burkhard, E. L.* 1464.
 —, *J. T. s. Dalgarno, A.* 621, 723, 2007.
 —, *B. M. and Siegert, A. J. F.* Variant on the Yang Lee theory of condensation. 381.
- , *Margaret N., Green, Louis C., Mulder, Marjorie M., Miller, Paul C. and Kolchin, Eleanor K.* Computed transition probabilities for the X-ray K-edge of potassium. 96.
 —, —, —, — Computed transition probabilities for X-ray continua of potassium. 1886.
s. Green, Louis C. 619.
s. P. s. Deeley, C. M. 278.
- , *R. P. Waldo.* Reflection of radio waves from an ionized layer having both vertical and horizontal ionization gradients. 2177.
R. R. jr. Many body effects in nuclear scattering of electrons. 1384.
T. J. Mechanism of high-field electron emission from tarnished metal surfaces. 148.
- Factors influencing field emission and the Fowler-Nordheim law. 1243.
- Lewschin, L. W.* Einfluß der Konzentration auf die optische Beschaffenheit von 3,6 Diaminoakridinlösungen. 325.
 — Einfluß der Konzentration auf die optische Beschaffenheit von Lösungen der Akridinverbindungen. 326.
- Leyburn, H. s. Christie, J.* 1054.
- Lhairy, E. M. s. Tourky, Riad.* 1864.
- Li, Chi Yao and Nowick, A. S.* Effect of quenching and neutron irradiation on atomic mobility in a Cu-Al alloy. 1175.
 —, *C. W. s. Sherr, R.* 67.
 —, *T. T.* Double stars due to cosmic rays. 2021.
 —, *Yin-Yuan and Smoluchowski, R.* Diffraction of X-rays by lattice imperfections. 790.
 —, — Fourier analysis of X-ray small-angle scattering. 790.
 —, — Theory of X-ray small-angle scattering. 790.
 — *s. Robinson, W. H.* 777.
- Liang, C. Y. and Krimm, S.* Normal vibrations and infrared spectrum of polytetrafluoroethylene. 1839.
 — *s. Krimm, S.* 1839.
- Liao, T. W. and Kresge, J. S.* Detection of corona in oil at very high voltages. 2497.
- Liaudansky, L. H. s. Mitchell, R. T.* 1476.
- Libby, W. F.* Altersbestimmung mit radioaktivem Kohlenstoff. 1125.
 — *s. Heft, Robert E.* 1169.
- Liberman, Alvin M. s. Cooper, Franklin S.* 2224.
- Lichtenberg, D. B.* Pion production in proton-proton scattering. 235.
 — Pion production in proton-proton collisions. 1345.
- Liddel, Urner.* Nuclear physics. 948.
- Lide, David R. jr.* Microwave spectrum and structure of benzonitrile. 998.
 — Effects of internal motion in the microwave spectrum of methyl amin. 998.
- , *D. R. jr. s. Kivelson, D.* 437.
- Lidén, K. and Starfelt, N.* Internal and external bremsstrahlung accompanying the beta rays of P³². 593.
- Lidiard, A. B.* Impurity diffusion in polar crystals. 259.
s. Donovan, B. 9.
s. LeClaire, A. D. 2427.
- Lidofsky, L., Benczer, N., Macklin, P. and Wu, C. S.* Beta decay of RaE. 1162.
 —, *L. J., Benczer, N. and Fischer, V. K.* Radioactive decay of Ca⁴⁷. 1358.

- Liebenberg, D. H. s. Ingersoll, L. R.* 1888, 2531.
- Lieberman, R. s. Keck, P. H.* 1625.
- Liebhaufsky, H. A., Pfeiffer, H. G. and Zemany, P. D.* Precision in X-ray emission spectrography. 1064.
- Liebig, Justus von* — zur 150. Wiederkehr seines Geburtstages am 12. Mai 1953. 2255.
- Liebl, H. und Ewald, H.* Massenbestimmung von ^{10}B , ^{11}B , ^{23}Na , ^{39}K und ^{41}K mit Hilfe einer Elektronenstoß-Ionenquelle. 1984.
- *s. Schierstedt, G. v.* 2006.
- Liebmann, G.* Solution of elastic vibration problems with the resistance-network analogue. 199.
- Field distribution in asymmetrical magnetic electron lenses. 691.
- Magnetic pinhole electron lens. 691.
- Solution of transient heat flow and heat transfer problems by relaxation. 747.
- Solution of plane stress problems by an electrical analogue method. 1502.
- Unified representation of magnetic electron lens properties. 2536.
- Liebson, S. H. and West, E. J.* Surface recombination of cadmium sulfide. 1891.
- *s. Raviliou, C. F.* 862.
- Liedtke, Robert A. s. Mittelman, Phillip S.* 2032.
- Lieneueg, Fritz.* Absolute und relative Feuchtebestimmungen mit dem Lithiumchlorid-Feuchtemesser. 1117.
- Lieshout, R. van, Greenberg, D. H. and Wu, C. S.* Decay of Cr^{48} . 1148.
- , *Koerts, L. A. Ch. and Wu, C. S.* Decay of Cr^{48} . 1566.
- *s. Farrelly, B.* 1161, 1560.
- *s. Koerts, L.* 1156.
- Liesse, Mlle Claudine s. Géhéniau, Jules.* 1925.
- Light, L. H. and Hooker, Prudence M.* Transistor d. c. convertors. 479.
- Lighthill, M. J.* Image system of a vortex element in a rigid sphere. 1944.
- Lihl, F. und Jenitschek, P.* Elektrolytische Abscheidung mehrerer Metalle an Quecksilberkathoden. 832.
- Likely, J. G. s. Ajzenberg, F.* 1795.
- Liljegren, Ervin J. and Webster, Stewart H.* Remote pipette control for radioactive liquids. 2230.
- Lill, Gordon G.* Office of Naval Research Laboratory of Oceanography and Hydraulics Laboratory, Woods Hole, Massachusetts. 1291.
- Lim, Y. K.* Unusual electron shower. 2399.
- Lima-de-Faria, José.* Effets des charges électriques macroscopiques formées à l'intérieur des solutions et leur importance dans le processus d'électrolyse. 2160.
- Obtention de charges électriques macroscopiques à l'intérieur des solutions. 2163.
- Lin, C. C.* Motion in the boundary layer over a flat plate with a sudden change of speed. 915.
- , *Chun C.* Theory of the fine structure of the microwave spectrum of NO_2 . 437.
- and *Mizushima, Masataka.* Theory of the hyperfine structure of the NO molecule. II. Errata and some additional discussion. 1814.
- , *Lan-Ying and Russell, B. R.* Change in length of alkali halide crystals caused by X-ray irradiation. 1825.
- Lind, D. A. and Loef, J. J. van.* Analysis of inelastic neutron scattering data for Mn, Fe and I. 1555.
- *s. Davis, Robert H.* 1790.
- *s. Divatia, Ajay S.* 1790.
- *s. Loef, J. J. van.* 969, 2373.
- Lindeberg, G. K. s. Arnold, W. H.* 1332.
- Lindemann, W. W.* Cause and elimination of anomalous flicker effect. 680.
- Linden, Bernard R.* Photomultipliers and operating data. 1251.
- Lindenbaum, S. J. and Yuan, Luke C. L.* Total cross section of hydrogen for 150-to 750-Mev positive and negative pions. 1603.
- , *Seymour J. s. Pevsner, Ahud.* 2039.
- Lindenberger, Karl Heinz.* Magnetisches Kerndipolmoment und Kerndrehimpulsquantenzahl des $^{69}\text{Tm}^{169}$. 994.
- Linder, Rolf.* Nichtstationäres Fließen hochviskoser Stoffe. 2438.
- , *S. L.* Nuclear magnetic relaxation in ethane derivatives. 2460.
- Lindern, L. v.* Mesonenerzeugung bei Kernstößen hoher Energie. 1990.
- Lindhard, J. and Scharff, M.* Energy loss in matter by fast particles of low charge. 2388.
- , *Jens s. Bohr, Niels.* 1164.

- Lindhe, S. s. Haeffner, E.* 1140.
Lindholm, Einar. Vibrations and bending of pre-stressed circular plates. 2283.
Lindner, L. and Brinkman, G. A. Zinc 60 and zinc 61. 2363.
 —, — and *Pieterse, A. C.* Radiations of copper 59. 2371.
 —, *P.* Lichtpulsationen von Leuchtstofflampen bei Fernsehübertragungen. 2515.
 —, *Roland.* Bildung von Spinellen und Silikaten durch Reaktion im festen Zustand, untersucht mit der Methode radioaktiver Indikatoren. 1007.
Lindqvist, T. s. Glauber, R. J. 1579.
 —, *Torsten and Wu, C. S.* Inner bremsstrahlung from A^{37} . 596.
 — and *Wu, Chien-Shiung.* Inner bremsstrahlung from A^{37} . 1577.
Lindroth, Kristen. Reflection of electromagnetic waves from thin metal strips. Passive antennae 1672.
Lindsay, John C. and Masket, A. Victor. Ultraspeed transient dynamic analyzer for mechanics and ballistics. 20.
 —, *William F.* Extremely thin conductive graphite coatings. 49.
Lindsay-Jones, G. s. Shire, E. S. 2367.
Lindström, G., Siegbahn, K. and Wapstra, A. H. Precision measurement of the ^{137}Cs γ -line. 2386.
Linfoot, E. H. and Duffieux, P. Michel. Lumière diffractée éloignée et appréciation des images. 2199.
Ling, Daniel S. jr. Expansion of wave packets. 4.
Linhart, J. G., Templeton, I. M. and Dunsmuir, R. Microwave resonant cavity method for measuring the resistivity of semi-conducting materials. 848.
Linger, W. s. Blanc, Ch. 1708.
Linsels, M. Untersuchung über die Reaktionsfähigkeit und Standfestigkeit von Kaolinen mit der Differentialthermoanalyse. 869.
 — Plastizitätsmessung in der Keramik. 2215.
Linnett, J. W. and Marsden, D. G. H. Kinetics of the recombination of oxygen atoms at a glass surface. 1115.
Linsley, John. Čerenkov counter measurement of fast multiply charged cosmic rays. 1177.
 — Measurement of multiply charged cosmic rays by a new technique. 988.
Lint, V. A. J. van, Reynolds, George T., Treiman, S. B. and Tenny, F. H. Correlation of planes in V particle decay events. 1133.
 —, *V. A. van s. Arnold, W. H.* 938.
 —, *V. A. J. van s. Arnold, W. H.* 1332.
Lintner, K. s. Futschik, F. 2173.
 — *s. Schmid, E.* 776, 2397.
 — *s. Wieninger, E.* 232.
 —, *Karl and Schmid, E.* Fließversuche mit β -bestrahlten Zink-Kristallen. 1388.
Liotta, R. S. Covariant canonical equations for a classical field. I. 2464.
Lipkin, H. J., Rosendorff, S. and Yekutieli, G. Multiple scattering parameter. 774.
 —, *Shalit, A. de and Talmi, I.* Description of collective motion by the use of superfluous co-ordinates. 400.
Lippert, Ernst. Valenzschwingungen und Elektronenstruktur von funktionellen Gruppen in aromatischen Verbindungen. 100.
 — Dipolmoment und Elektronenstruktur von angeregten Molekülen. 166.
 —, *W.* Eigenschaften von elektrostatischen Einzellinsen, deren Achsenpotential fast das Kathodenpotential erreicht. 324.
 — und *Pohlitz, W.* Kenntnis der elektronenoptischen Eigenschaften elektrostatischer Linsen. III. 691.
 —, *W. K. R.* Method of measuring discontinuity effects in ducts. 1736.
 — Measurement of sound reflection and transmission at right-angled bends in rectangular tubes. 1736.
 — Filter theory of periodic structures. 2184.
 — Method of computing acoustical filters. 2303.
 — Filter theory of periodic structures. 2514.
Lippincott, Ellis R. and Nelson, Richard D. Vibrational spectra and structure of ferrocene and ruthenocene. 433.
Lippmann, David Z. s. Pitzer, Kenneth S. 1319.
Lipps, F. W. and Tolhoek, H. A. Polarization phenomena of electrons and photons. I. Method and application to Compton scattering. 246.
Lipscomb, F. J., Norrish, R. G. W. and Thrush, B. A. Study of energy transfer by kinetic spectroscopy. I. Pro-

- duction of vibrationally excited oxygen. 861.
- Lipscomb, Williams, Eberhardt, W. H.* 1615.
- , *William N.* Residual entropy of the polar structure of ice. 25.
- Structures of the boron hydrides. 1615.
- *s. Zaslav, Bertram.* 2068.
- Lipsett, F. R.* Deposition of thin films of gold on cylindrical specimens by sputtering. 640.
- , *Frederick and Dekker, A. J.* Fluorescent spectra of solid solutions of naphthalene with added anthracene. 326.
- Lipsicas, M. M. s. Allen, K. R.* 1170.
- Lipsky, S. s. Burton, Milton.* 555.
- Lipson.* Calculs optiques en cristallographie. 2531.
- , *H. G., Burstein, E. and Smith, P. L.* Optical effects in plastically deformed germanium. 2123.
- , *S., Saia, A. and Rosenthal, H.* Gravimeter for rapid density measurement of solids. 1099.
- Lipworth, Edgar s. Novick, Robert.* 1611, 1805.
- Liss, R. B. s. Buzzard, R. W.* 1075.
- Lister, B. A. J. s. Duncan, J. F.* 382.
- Litherland, A. E., Paul, E. B., Bartholomew, G. A. and Gove, H. E.* Neutrons from the reaction $C^{14}(pn)N^{14}$. 572.
- , —, — Gamma-ray cascades in Al^{25} . 1370.
- *s. Bartholomew, G. A.* 964, 1548, 1784.
- *s. Calvert, J. M.* 603.
- *s. Ferguson, A. J.* 601.
- *s. Gove, H. E.* 65, 1784, 1785.
- *s. Paul, E. B.* 1371, 1559.
- Litovitz, T. A., Higgs, R. and Meister, R.* Ultrasonic propagation and its relation to molecular structure in the diols. 2302.
- Littauer, R. M.* Radioactivity of F^{20} . II. 224.
- Litting, C. N. W.* Method of investigating the secondary emissive properties of insulators. 2175.
- Little, Elizabeth A.* Dynamic behavior of domain walls in barium titanate. 1238.
- , *K.* Irradiation of linear high polymers. 265.
- and *Lees, C. S.* Uranium shadowing for electron microscopy. 1687.
- , *R. N. jr., Leonard, R. P. jr., Prud'homme, J. T. and Vincent, L. D.* Liquid scintillator measurements of angular elastic scattering of neutrons from carbon, aluminum and sulfur. 980.
- Little, V. I.* Dielectric constant of aqueous ionic solutions. 146.
- Littlefield, T. A.* Photoelectric recording of reflecting echelon fringes. 494.
- and *Turnbull, D. T.* Argon vacuum wave-length measurements. 1610.
- *s. Blackie, J.* 1396.
- Littlewood, D. E.* Cosmological principle. 352.
- Littman, Armand, Fox, Benum W., Beattie, J. W. and Laughlin, John S.* Extrapolation ionization chamber for measurement of dosage in intracavitary irradiation. 2226.
- Litz, L. M. s. Ring, S. O.* 403.
- Litvak, A. A. s. Zollers, S. M.* 1069.
- Livesey, D. J. s. Bach, G. G.* 767.
- , *D. L.* Nuclear temperatures at low excitation energies. 1359.
- Livingston, Ralph, Benjamin, Ben M., Cox, J. T. and Gordy, Walter.* Nuclear spin and quadrupole moment of I^{31} . 436.
- *s. Burrus, Charles A.* 786.
- *s. Zeldes, Henry.* 1847.
- , *R. L., s. Lemaire, H. P.* 2054.
- , *Robert S. and Jones, Royce J.* High-intensity ion source for cyclotrons. 388.
- Llewellyn, P. M. s. Baker, J. M.* 2358.
- Lloyd, Carroll L. and Harris, B. L.* Binary liquid phase adsorption. 2446.
- , *J. L. and Wolfendale, A. W.* Scattering of μ -mesons in lead and iron. 609.
- Unusual double V-event at sea level. 1131.
- Loasby, R. G. s. Bates, L. F.* 816.
- Locatelli, B. s. Bonetti, A.* 2352.
- *s. Corato, M. di.* 2367.
- Lochet, R. s. Motte, S.* 1467.
- *s. Rousset, A.* 316.
- Lochner, J. P. A. and Keet, W. de V.* Method of measuring the dynamic Young's modulus of concrete. 693.
- Lochte-Holtgreven, W.* Auf einer Kohle-anode umlaufender Lichtbogenansatz. 2166.
- and *Nissen, W.* Elektronenaffinitätsspektrum neutraler Wasserstoffatome. 1613.
- Lock, J. M. s. Allen, W. D.* 2113.
- , *R. C.* Stability of the flow of an electrically conducting fluid between

- parallel planes under a transverse magnetic field. 1309.
- Lock, W. O. and March, P. V. Nuclear interactions of 600 MeV protons. 769.
- and Yekutieli, G. Interaction of fast π -mesons with nuclei. 2013.
- March, P. V., Muirhead, H. and Rosser, W. G. V. Nuclear interactions of 950 MeV protons. 768.
- s. Duke, P. J. 774.
- s. Goldsack, S. J. 1999.
- Lockett, Andrew M. 3-body exchange magnetic moments of H^3 and He^3 . 1139.
- Lockhart, Helen S. s. Brownell, Gordon L. 1984.
- Lodding, A. Selbstdiffusion in geschmolzenem Indiummetall. 1411.
- Lodding, Alex, Lunden, Arnold und Ubisch, Hans von. Temperaturabhängigkeit des Isotopieeffektes bei Stromdurchgang in geschmolzenem Indiummetall. 1349.
- , Alex s. Lundén, Arnold. 764.
- Lodge, J. A. s. Webley, R. S. 682.
- , James P. and Tufts, Barbara J. Electron microscope study of sodium chloride particles as used in aerosol generation. 1637.
- Loeb, A. L. s. Goodenough, J. B. 1192.
- , Arthur L. s. Harris, Louis. 2091.
- Löb, E. Konzentrische $\lambda/4$ -Leitung als Meßsonde zur Messung mechanischer Schwingungen. 910.
- , Emil. Druckwirkungen von Ionenströmen in atmosphärischer Luft bei verschiedenen Entladungsanordnungen. 1045.
- Loeb, Julien et Lebel, Jean D. Servomécanismes dyssymétriques. 195.
- , Leonard B. Experimental contributions to the knowledge of charge generation. 528.
- , Leopold s. Segal, Leon. 925.
- , William A. s. Goertzel, G. 1127.
- Loebner, E. E. Bistable solid state optoelectronic devices. 1248.
- and Freund, H. Stacked barriers in an electroluminescent zinc sulfide crystal. 1264.
- Loef, J. J. van and Lind, D. A. Inelastic scattering of neutrons by Fe, F, Mn and I. 969.
- Measurements of inelastic scattering cross sections for fast neutrons. 2373.
- Loef s. Lind, D. A. 1555.
- Löffler, Eugen. Politische Bildung durch Mathematik und Naturwissenschaften 2253.
- , Kurt. Erzeugung stehender Oszillografenbilder von beliebigen auf Magnetband aufgenommenen Vorgängen. 1098.
- Lönnqvist, Olov. Theoretical verification of the logarithmic formula for the relative net radiation to a cloudless sky. 891.
- Synthetic formulae for estimating effective radiation to a cloudless sky and their usefulness in comparing various estimation procedures. 891.
- Lönsjö, O. s. Roderick, H. 72.
- s. Taylor, H. L. 1596.
- Loepfe, E. s. Glättli, H. 34.
- Lösche, A. und Hultschig, H. Dielektrophorese in Flüssigkeiten. 1206.
- Loeven, W. A. s. Bungenberg de Jong, H. G. 809.
- Loevinger, Robert and Feitelberg, Sergei. Using bremsstrahlung detection by a scintillator for simplified beta counting. 36.
- Löwdin, Per-Olov. Molecular-orbital theory of conjugated organic compounds with application to the perturbed benzene ring. 782.
- Atomic selfconsistent fields. I. Calculation of Slater functions. II. Interpolation problems. 1498.
- Quantum theory of many-particle systems. I. Physical interpretations by means of density matrices, natural spin-orbitals, and convergence problems in the method of configurational interaction. 1928. II. Study of the ordinary Hartree-Fock approximation. 1928. III. Extension of the Hartree-Fock scheme to include degenerate systems and correlation effects. 1928.
- Löwe, F. Staubmeßgeräte und -verfahren für Aufgaben der Gewerbehygiene und der Meteorologie. 2551.
- Lojerski, J. J. s. Jenny, D. A. 1652.
- , Joseph, J. s. Rappaport, Paul. 1434.
- Lofgren, E. J. s. Foster, John S. jr. 1934.
- Lofstrom, James E. s. Horwitz, Norman H. 2194.
- Logan, J. K. s. Clement, J. R. 1739.
- , John K. Optical goniometer. 866.
- , Joseph G. s. Kerner, Edward H. 107.

- Logan, R. A.* Precipitation of copper in germanium. 2130.
- Logunow, A. A. s. Terlezki, J. P.* 988.
- Loh, Otto.* Lichtbogenarbeit beim Abschalten eines Wechselstromkreises. 675.
- Länge des Lichtbogens hoher Stromstärke. 2495.
- Lohff, J.* Elektronenemission bei der plastischen Verformung von Zinkkristallen. 2172.
- und *Raether, H.* Elektronenemission von Metalloberflächen nach mechanischer Bearbeitung. 149.
- Lohmann, A.* Abbe-Experimente als Meßmethoden für die absolute Lichtphase. 1066.
- und *Wegener, H.* Behandlung der optischen Abbildung durch Entwicklung nach ebenen Wellen. 1065.
- , *Paul s. Heumann, Theo.* 801.
- , *W.* Masse der Galaxis. 1083.
- Lohrmann, E.* Energy determination of electron pairs. 1129.
- Meson production at very high energies. 2020.
- Measurements on high energy electron showers. 2045.
- and *Teucher, M.* Spurious scattering in nuclear emulsions. 1748.
- , *Peyrou, Ch., Teucher, M. und Wintzeler, H.* Kernwechselwirkung von K^- -Mesonen in Ruhe. 762.
- *s. Hänni, F.* 1757.
- Loinger, A.* Analogia fra l'elettrodinamica quantistica e l'elettrodinamica classica della descrizione corpuscolare. 719.
- *s. Bocchieri, P.* 719, 1296, 1925.
- Loiseleur, J.* Synthèses chimiques consécutives à l'action des radiations ionisantes. 613.
- , *Jean.* Synthèses chimiques consécutives à l'action des agents physiques peroxydasiques (rayons X, rayons ultraviolets ou ultrasons). 1258.
- *s. Lacassagne, Antoine.* 1258.
- Lokanathan, S. and Steinberger, J.* Search for improbable meson decays. 943.
- Lokken, J. E.* Contribution from phonon-phonon interactions to the T^3 term of the specific heat of helium II. 1829.
- Lollis, Nicholas J. de s. Ehrlich, Paul.* 2085.
- Lomer, W. M. and Cottrell, A. H.* Annealing of point defects in metals and alloys. 260.
- Lonappan, M. A.* Thermal expansion of boric acid. 1509.
- Thermal expansion of potassium nitrate. 1961.
- Lonati, R. Dugnani s. Bracci, A.* 2042.
- Loncar, Josip.* Occasion of the tenth anniversary of the death of Nikola Tesla. 2255.
- Lonchamp, J. P.* Développement induit le long des traces nucléaires dans l'émulsion photographique. 1977.
- et *Braun, H.* Fixage des émulsions nucléaires. 2339.
- London, Albert s. Jones, Earle.* 2303.
- Long, A. L. s. Simanton, J. R.* 59, 591.
- , *Donald.* Effect of pressure on the electrical properties of indium antimonide. 2129.
- Effects of pressure on the electrical properties of semiconductors. 2474.
- and *Miller, Park H. jr.* Effect of pressure on the electrical properties of InSb. 1224.
- , *D. A. s. Bell, R. P.* 782.
- , *Earl and Meyer, Lothar.* Superfluidity in unsaturated helium films above the λ temperature. 635.
- , — Superfluidity and heat transport in the unsaturated helium-II film. 1197.
- *s. Inghram, Mark G.* 635.
- , *F. A. and Thompson, L. J.* Water induced acceleration of the diffusion of organic vapors in polymers. 1633.
- , *G. s. Caldin, E. F.* 1114.
- , *I. F.* Direct evaluation of psychrometric data from dry- and wet-bulb recorders. 2332.
- , *Robert R.* Internal finite gravity waves in a stratified fluid. 917.
- Longdon, L. W. s. Hope, J.* 2008.
- Longini, R. L.* Electronic interaction of imperfections in semiconductors and insulators. 1650.
- Temperature-dependent factor in carrier lifetime. 2132.
- and *Greene, R. F.* Ionization interaction between impurities in semiconductors and insulators. 2116.
- *s. McKelvey, J. P.* 2116.
- Longmore, L. s. Hopkinson, R. G.* 322.
- Longo, T. A. s. Kleitman, D.* 1434.
- , *Thomas A. and Kleitman, David.* Neutron irradiated silicon. 1434.
- Longsworth, L. G.* Temperature dependence of diffusion in aqueous solutions. 2430.

- Longuet-Escard, Mme Jacqueline s. Mering Jacques. 103.
- Longuet-Higgins, H. C. Electronic states of composite systems. 1719.
- and Murrell, J. N. Electronic spectra of aromatic molecules. V. Interaction of two conjugated systems. 999.
- and Pople, J. A. Electronic spectra of aromatic molecules. IV. Excited states of odd alternant hydrocarbon radicals and ions. 998.
- Loo, Maurice van s. Asbeck, W. K. 2098.
- Loocke, G. Bemessung von Gleichstrommaschinen für Regelzwecke. 1098.
- Messung der Bürstenkurzschlußströme einer Gleichstrommaschine mit Hilfe des Halleffektes. 2174.
- Looms, J. S. T. Localized corona discharges at a negative electrode. 2491.
- s. Standing, W. G. 315.
- Loor, G. P. de. Method of obtaining information on the internal dielectric constant of mixtures. 146.
- Lopes, J. Leite s. Goldemberg, J. 2014.
- Lopuszański, J. Asymptotic behaviour of the cosmic ray cascade for large depth of the absorber. II. Asymptotic behaviour of the probability distribution function. 778. III. Evaluation of the distribution function. 778.
- Lorch, Edgard Raymond. Estensioni del concetto di volume. 1101.
- Lord, J. J. s. Fleming, John R. 1121.
- s. Glasser, R. G. 1147.
- s. Hourd, R. F. 987.
- s. Orear, Jay. 423.
- , N. W. s. Jen, C. K. 446.
- , R. C. and McCubbin, T. K. jr. Use of a diffraction grating in a Perkin-Elmer double-pass infrared monochromator. 1678.
- , — High-resolution spectroscopy in the 3—5 micron region with a small grating spectrometer. 1882.
- and Steese, C. M. Infrared spectra of monochlorogermane and monochlorogermane-d₃. 1814.
- and Walker, R. W. Vibrational spectra and possible structures of the dimers of cyclooctatetraene. 2410.
- Lorentz, Lilly s. Mohler, Nora M. 1919.
- Lorenz, I. Anwendung von Reglern in der Gasverwendung. 2277.
- , Werner. Verträglichkeit ionisierender Strahlen. 347.
- Lorenz, Wolfgang. Einfluß von Oberflächenrauigkeit und potentialbestimmenden der Ionenadsorption an Elektroden auf das Anklingen der Diffusionspolarisation bei konstantem Strom. 660.
- Zusammenhang zwischen galvanostatischer und potentiostatischer Ladekurve und Frequenzspektrum der Doppelschichtimpedanz an Elektroden. 2143.
- Elektrochemische Potentialbildung an der Grenzfläche Metall/Elektrolyt. 2146.
- und Mühlberg, Heinz. Messung der Adsorption potentialbestimmender Ionen an Elektroden nach der Methode der nichtstationären Konzentrationspolarisation. 660.
- Loria, A. s. Deutschmann, M. 1335, 1999.
- s. Hodson, A. L. 1976.
- Losa, Celso Gutierrez s. Clusius, Klaus. 1109.
- Loshaek, S. s. Fox, T. G. 1412, 2440.
- Lossen, Heinz. Einheit der Medizinischen Strahlenkunde. 341.
- Lottermoser, W. und Braunmühl, H. J. von. Stimmtonfrage. 2299.
- Louat, N. Effect of temperature on Cottrell atmospheres. 2212.
- s. Head, A. K. 1408.
- Loughhead, R. E. Hydromagnetic stability of a current layer. 1645.
- Eigen oscillations of compressible, ionized fluids. 1645.
- Solution of problems involving the hydromagnetic flow of compressible ionized fluids. 1646.
- Loughlin, B. D. s. Hirsch, C. J. 489.
- Loughran, E. Dan s. Watters, James I. 2408.
- Louisell W. H. and Pierce J. R. Power flow in electron beam devices. 991.
- , Pidd, R. W. and Crane, H. R. Experimental measurement of the gyro-magnetic ratio of the free electron. 560.
- Lounamaa, N. Spectrographic analysis of copper-making and lead-making slags for major constituents. 2211.
- Lounsbury, M. s. Bartholomew, Rosalie M. 239.
- Lourijsen-Teyssèdre, Mme. Etude des phénomènes de condensation en chimie minérale. II. Constitution des solutions de tellurates. 550.

- Lovati, A. and Tyrén, H. Magnetic analyser for high energy particles. 1980.
- Love, B. s. *Emeleus*, K. G. 2492.
- , Donald J. s. *Storey*, Clifford F. 2226.
- , W. A. s. *Siegel*, R. T. 2391.
- , William F. s. *Passaglia*, Elio. 1022.
- Lovejoy, D. R. Surface tension of He^3 . 1196.
- Lovell, D. J. Photograph of the green segment. 532.
- Lovera, G. Fluttuazioni statistiche nei conteggi di gruppi di granuli e di lacune nelle emulsioni nucleari. 1976.
- Loving, W. F. Impedance bridge. 643.
- Low, F. s. *Bethe*, H. A. 3.
- , F. E. s. *Chew*, G. F. 2289.
- , s. *Moellering*, W. M. 1809.
- , G. G. E. Pulse method for measuring the injection ratio of metal-semiconductor contacts. 287.
- , Modulation of the surface conductance of germanium by pulsed electric fields. 1431.
- , W. Fermi resonance in the microwave spectrum of linear XYZ molecules. 787.
- , Paramagnetic resonance spectrum of some doubly activated phosphors. 863.
- , Braun, A. E. and Steinberger, I. T. Dielectric constant measurements on doubly activated phosphors. 1070.
- , s. *Bleaney*, B. 1642.
- , s. *Geller*, Z. 1236, 2180.
- , s. *Steinberger*, I. T. 1891.
- Lowde, R. D. Spin fluctuation scattering of neutrons and the ferromagnetic state in iron. 1798.
- Lowe, A. E. Stabilized radio-frequency e.h.t. supply. 1640.
- , I. J., Bowen, L. O. and Norberg, R. E. Nuclear magnetic relaxation times in polyethylene. 1212.
- Lowen, Robert s. *Critchfield*, C. L. 1533.
- , R. W. Phase-shift analysis of the elastic scattering of protons by He^3 . 601.
- Lowenthal, Serge. Mesure du déphasage de couches absorbantes par un interféromètre à polarisation. 2092.
- Lower, G. W. s. *Zetlemoyer*, A. C. 1202.
- Lowitz, D. A., Webb, W. and Schiessler, R. W. Temperature-pressure-structure effects on the viscosity of several higher hydrocarbons. 374.
- Lowry, Ralph, A. and Miller, Glenn H. Measurement of the ionization yield of low energy ions in a gas. 428.
- Loyd, C. M. s. *Ward*, J. K. 2058.
- Lozano, Juan Manuel. Poles of the S-matrix for the cloudy crystal ball model. 1542.
- Loze, C. de et Lenormant, H. Spectre I. R. et structure de la nucléohistone de thymus. 1408.
- Lubkin, J. L. Torsion of elastic spheres in contact. 910.
- Lubszynski, H. G. s. *Webley*, R. S. 682.
- Lucas, Ilse. Durchgang einer ebenen aerodynamischen Welle von halbtägiger Schwingungsdauer durch eine ebene Modell-Ionosphäre im homogenen Magnetfeld. 1912.
- Luck, W. s. *Kortüm*, G. 318.
- Luckey, David. Charged photomesons from carbon. 941.
- , George W. Effect of bromine on the dark conductivity of silver bromide and its relation to photoconductivity. 1226.
- , G. W. s. *Judge*, K. 904.
- Lucy, F. A. Correction of meridian aberrations. 162.
- , Simultaneous correction of meridian aberrations. I. Preliminaries. 1683.
- Ludekens, W. L. W. and Welch, A. J. E. Reactions between metal oxides and fluorides: double-fluoride structures of type ABF_3 . 1005.
- Ludford, G. S. S., Martinek, J. and Yeh, G. C. K. Sphere theorem in potential theory. 1306.
- Ludloff, H. F. and Friedman, M. B. Difference solution of shock diffraction problem. 916.
- Ludwig, Charlotte. Hartmetall und Wolfram-Kupfer-Kontaktmaterial für die elektrotechnische Industrie. 2500.
- , Günther. Deutung der Beobachtung in der Quantenmechanik. 186.
- Lübbers, H. s. *Engelhardt*, W. v. 2285.
- Lüders, G. Einfluß von Fehlern des magnetischen Feldes auf die Betatronschwingungen im Synchrotron mit starker Stabilisierung. 936.
- , Gerhart. Zusammenhang zwischen S-Matrix und Normierungintegralen in der Quantenmechanik. 186.
- , Equivalence of invariance under time reversal and under particle-antiparticle conjugation for relativistic field theories. 187.
- , Symmetry operations in quantum theory. 2266.

- Lüders, Karl. Zeichengerät für die Auswertung von Gezeitenkurven. 2579.
- Lüdi, Fritz. Zu: Einfluß der Plasmaschwingung in Laufzeitröhren. 1251.
- Lühns, Gerold. Kernquadrupolmoment des $^{57}\text{La}^{139}$. 781.
- und Steudel, Andreas. Kernquadrupolmoment des La^{139} . 1398.
- Lüscher, Fritz. Methode zur Bestimmung von Dämpfungsgrößen in Transonisch- und Überschallkanälen. 1103.
- Lüst, R. und Schlüter, A. Spezielle Art nichtwirbelfreier Lösungen der hydrodynamischen Gleichungen. 734.
- Lüst-Kulka, Rhea. Temperatur und Elektronendruck in den Atmosphären von S Sagittae und T Vulpeculae. 1698.
- Lüthi, B. Magnetische Widerstandsänderungen von Metallen in hohen Feldern. 2466.
- Lüttj, Fritz. Röntgenphotochemie bei tiefen Temperaturen in KBr-Kristallen. 1626.
- Lufcy, C. W., Schmid, A. E. and Barnhart, P. W. Magnetic servo amplifier. 908.
- Luff, B. B. s. Egan, E. P. jr. 1938.
- Luft, N. W. Thermodynamic functions of FCN. 747.
- Potential barriers about double bonds. 1617.
- Norbert W. Influence of intramolecular repulsion on bond energies. 1186.
- Bildungswärmen der Alkoxy-Radikale und OO-Dissoziationsenergien. 2310.
- Lukesh, Joseph S. Neutron damage to the structure of vitreous silica. 610.
- Lumbroso, Daniel s. Despujols, Jacques. 1894.
- , Henri et Marschall, Charles. Méso-mérie des thio's et des sulfures aromatiques. 1617.
- , R. Application de l'utilisation des radiotraceurs à l'étude de résines échangeuses d'ions. 2326.
- Lundberg, J. Means for temperature measurements and gas analysis. 2307.
- Lunden, A. s. Cameron, A. E. 1349.
- Lundén, A. s. Shire, E. S. 2367.
- , Arnold, Reuterswärd, Carl und Lodding, Alex. Isotopieeffekt bei Stromdurchgang in geschmolzenem Kaliummetall. 764.
- , Monse, Ernst Ulrich und Sjöberg, Nils G. Isotopieeffekt bei der elektrolytischen Wanderung von Li-Ionen in geschmolzenem Lithiumnitrat. 1141.
- Lundén s. Huus, Torben. 240.
- s. Lodding, Alex. 1349.
- Lundqvist, Stig O. Limiting vibrational frequencies of a cubic ionic lattice. 1624.
- Lupo, Massimo s. Andreoni, Orazio. 709.
- Lurio, A. and Prodell, A. G. Hfs separations and Hfs anomalies in the $^{2}\text{P}_{1/2}$ state of Ga^{69} , Ga^{71} , Tl^{203} and Tl^{205} . 1611.
- , — Hyperfine structure of gallium isotopes in the ground state. 1808.
- Luscher, Edgar. Measurements of the speed of little particles in air current. 204.
- Lusher, G. V. B. s. Benson, F. A. 151.
- Lustig, Harry and Blatt, J. M. Phase-shift analysis of single-channel reactions. 1795.
- Lutes, O. S. and Maxwell, E. Superconducting transitions in t n whiskers. 1648.
- , — Superconductivity oft in whiskers. 1648.
- Luther, H. s. Hampel, B. 2498.
- , Horst, Feldmann, Klaus und Hampel, Bruno. Molekülschwingungsspektren des Naphthalins und seiner Derivate. IV. Zuordnung der Ramanfrequenzen des Naphthalins. 1188.
- , Brandes, Günther, Günzler, Helmut und Hampel, Bruno. Molekülschwingungsspektren des Naphthalins und seiner Derivate. V. Zuordnung der Ultrarotfrequenzen des Naphthalins und seine thermodynamischen Funktionen. 1189.
- Luttinger, J. M. Quantum theory of cyclotron resonance for degenerate bands. 1025.
- Quantum theory of cyclotron resonance in semiconductors: general theory. 2116.
- and Kohn, W. Motion of electrons and holes in perturbed periodic fields. 470.
- s. Kohn, W. 470, 1024, 1025.
- Lutz, B. C. s. Segel, S. L. 2458.
- , Bruce C. Crystal structure of paradichlorobenzene. 1006.
- Lutze, Erich. Anomale paramagnetische Resonanzdispersion und -absorption in Kristallpulvern. 276.
- Luzzati, V. Traitement statistique des erreurs dans la détermination des structures cristallines. 2063.
- Lyand, Raymond s. Jaffray, Jean. 2422.

- Lye, Robert G.* Secondary electron emission from magnesium oxide single crystals. 674.
- Lyman, Theodore* †. 357.
- Lynch, Frank J. and Wesenberg, Clarence L.* Instrument for measurement of very high resistance. 463.
- Lyon, A. J. s. Appleton, E. V.* 2243.
- *s. Appleton, Sir Edward.* 2572.
- , *R. N. s. Bankoff, S. G.* 1957.
- , *W. S.* Decay of V^{49} . 60.
- and *Handley, T. H.* Radioactive Ca^{47} . 2027.
- and *Kahn, Bernd.* Decay of Sc^{47} . 1557.
- and *Rickard, R. R.* Gamma-ray branching in Sr^{89} . 1780.
- *s. Handley, T. H.* 955, 1547.
- *s. Kahn, B.* 955.
- Lyons, D. H. and Feingold, A. M.* Level structure of Li^6 . 62.
- , *Ernest H. jr.* Rolle der Elektronenkonfiguration bei der elektrolytischen Abscheidung aus wäßrigen Lösungen. IV. Äthylendiamin-Komplexe des Kobalts. 665.
- , *L. E. s. Carswell, D. J.* 293.
- *s. Craig, D. P.* 438.
- Lype, Eric F.* Kinetic theory of evaporation rates of liquids. 1112.
- M**
- Ma, S. T.* Power-series expansion of the unitary operator $U(t, t_0)$. 6.
- *Coulomb and Hulthen potentials.* 1932.
- Mabey, D. R. s. Pakiser, L. C.* 892.
- Mabboux, C. s. Hoang, T. F.* 1388.
- MacAdam, D. L.* Dependence of color-mixture functions on choice of primaries. 2226.
- McAllister, Robert W. s. Hofstadter, Robert.* 88, 607.
- McCaffrey, F. s. Honnold, V. R.* 2434.
- McCall, D. W. s. Mays, J. M.* 1034.
- *s. Shulman, R. G.* 1035.
- , *Richard C. s. Hine, Gerald J.* 246.
- McCarroll, R. W. and McDowell, M. R. C.* Properties of the hydrogen molecular ion. VI. Total electronic orbital angular momentum of the $1s\sigma_g$, $2s\sigma_g$ and $3s\sigma_g$ states. 251.
- McCarthy, C. A. s. Hopkins, R. E.* 1067.
- , *J. A. s. Hines, M. E.* 2518.
- , *John A.* Search for double beta decay in Ca^{48} . 571.
- McCaroll, John J.* World trends in the publication of physical research, 1938 bis 1948. 1920.
- , *Kathryn A. and Ballard, Stanley S.* Variation with temperature of the thermal conductivity of seven alkali halides. 1960.
- *s. Combes, Lewis S.* 27.
- , *R. L.* Chemical synthesis from free radicals produced in microwave fields. 1659.
- McClelland, Clyde, Mark, Hans and Goodman, Clark.* Electric excitation of heavy nuclei by protons. 410.
- , —, — Electric excitation of heavy nuclei with protons. 590.
- *s. Mark, Hans.* 590, 2010.
- , *J. D.* Field dependence of the Hall potential and magnetoresistance of irradiated graphite. 2043.
- McClements, J. S.* Post office quartz oscillators for use in time and frequency standardisation abroad. 706.
- McClung, Fred and Holmes, John R.* Isotope shift in the spectra of Hg^{198} - Hg^{202} . 1613.
- McClure, B. T.* Formative breakdown delays in noble gases at small over-voltages. 838.
- , *Donald S.* Polarization of π -electron transitions in aromatic molecules. 1191.
- , *Blake, Norman W. and Hanst, Philip L.* Singlet-triplet absorption bands in some halogen substituted aromatic compounds. 439.
- *s. McConnell, Harden.* 439.
- , *John J. s. Urban, John S.* 1748.
- , *J. W.* Axial ratios in hexagonal metals. 443.
- McConnell, Harden and McClure, Donald S.* Even-odd character of the 2900—3200 Å absorption transition in naphthalene. 439.
- , *H. M.* Induction heating of steel. 2274.
- McCormack, P. D., McCusker, C. B. A. and Wilson, B. G.* Secondary maxima in cosmic ray transition curves. II. 615.
- McCormick, Bruce H. and Klein, Abraham.* Meson pair theory. 7.
- *s. Klein, Abraham.* 246.
- , *G. H. and Cohen, B. L.* Fission and total reaction cross sections for 22-Mev protons on Th^{232} , U^{235} and U^{238} . 407.

- McCormick s. Cohen, B. L. 1770.
 —, W. W. s. Wahr, J. C. 1404.
 McCoskey, Robert E. s. Furukawa, George T. 211.
 McCoubrey, A. O. and Matland, C. G. Diffusion of metastable mercury molecules. 142.
 —, — Diffusion of metastable mercury molecules. 2163.
 — s. Maitland, C. G. 1000.
 McCrary, J. H. s. Bent, R. D. 1164, 1364, 1556, 1581.
 McCraw, T. F. s. Marton, L. 1181, 1607, 1608.
 McCrea, W. H. Newtonian cosmology. 351.
 — and Lawson, Robert W. Albert Einstein. 1089.
 — and Mikhail, F. I. Vector-tetrads and the creation of matter. 1924.
 McCree, K. J. s. Allan, A. H. 696.
 McCrum, N. G. and Eisenstein, J. C. Dipole fields and the helium film. 1198.
 McCubbin jr., T. K. s. Lord, R. C. 1678, 1882.
 McCulloh, K. E. and Pollnow, Gilbert F. Microwave spectrum of pyridine. 435.
 McCusker, C. B. A. and Wilson, B. G. Secondary maxima in cosmic ray transition curves. I. 614.
 — s. McCormack, P. D. 615.
 McCuskey, S. W. s. Shankland, R. S. 359.
 MacDonald, A. s. Keck, P. H. 823.
 — s. Lehovec, K. 823.
 — s. Matare, H. F. 2121.
 —, A. D. and Matthews, J. H. High-frequency ionization coefficients in neon-argon mixtures. 1440.
 — s. MacLennan, I. A. 1050.
 McDonald, C. A. s. Anderson, J. D. 559, 1759.
 —, C. C. Kahn, A. and Gunning, H. E. Photolysis of ammonia at 1849A in a flow system. 1685.
 MacDonald, D. K. C. and Roy, S. K. Vibrational anharmonicity and lattice thermal properties II. 107.
 —, — Thermoelectric power of monovalent metals at high temperature. 2499.
 — White, G. K. and Woods, S. B. Thermal and electrical conductivities of the alkali metals at low temperatures. 1851.
 — s. Cornish, F. H. J. 1849.
 — s. Duqdale, J. S. 1110.
 McDonald, F. B. Ellis, R. A. and Gottlieb, M. B. Rocket observations on soft tritium at northern latitudes. 249.
 — s. Webber, William R. 2398.
 —, Graham and Hawley, J. E. Spectrographic analysis of silicate and carbonate rocks and minerals. 509.
 MacDonald, J. R. and Brachman, M. K. Charging and discharging of nonlinear capacitors. 2453.
 MacDonald, J. Ross. Static space-charge effects in the diffuse double layer. 2481.
 — s. Brachman, Malcolm K. 1708.
 MacDonald, R. E. s. Allin, Elizabeth J. 1826.
 —, W. M. Isotopic spin impurity in light nuclei. 566.
 —, William M. Isotopic spin selection rule for electric dipole transitions. 965.
 McDonald, W. S. Peterson, Vincent and Corson, Dale R. Photoproduction of neutral pions from protons at forward pion angles. 1757.
 —, William, S. s. Corson Dale R. 1525.
 McDonnell, J. A. Scattering of 1 MeV electrons and positrons. 244.
 — Hanson, M. A. and Wilson, P. R. Energy loss distributions of 1 MeV electrons in aluminium foils. 2393.
 —, William R. and Kierstead, Henry A. Expansion of copper bombarded by 21-Mev deuterons. 54.
 McDonnell, D. and Perkins, W. R. Stability and time response of fast operating closedloop pulsed radar circuits. 155.
 McDonough, Ralph s. Carpenter, Robert O'B. 765.
 McDowell, C. A. Primary photochemical process in bromine. 163.
 — and Cox, B. C. Ionization potentials and electronic structures of methyl and ethyl fluoride. 1186.
 — s. Craggs, J. D. 1813.
 — s. Frost, D. C. 628, 2056.
 — s. Harrison, L. G. 1114.
 —, M. R. C. s. McCarroll, R. W. 251.
 Mace, David s. Green, Louis C. 619.
 McEllistrem, M. T. Analysis of $C^{12} + d$ reactions. 1353.
 — s. Galonsky, A. 65, 959, 960.
 — s. Jones, K. W. 958.

- McEwan, D. H.* Wide-range operation of grid-controlled rectifiers. 1671.
- , *William S. s. Burkardt, Lohr A. 12.*
- MacFarland, C. E. s. Shull, F. B. 389.*
- , *Charles E. Shull, Franklin B., Elwyn, Alexander J. and Zeidman, Benjamin.* Stripping reactions $\text{Fe}^{56}(\text{d}, \text{p})\text{Fe}^{57}$ and $\text{Fe}^{57}(\text{d}, \text{p})\text{Fe}^{58}$. 1797.
- , *Robert H. s. Swanson, Robert E. 1400.*
- MacFarlane, P. B.* Glacial shore-lines. 1085.
- McGarvey, B. R. and Gutowsky, H. S.* Nuclear magnetic resonance in metals. II. Temperature dependence of the resonance shifts. 277.
- McGee, R. X. Slee, O. B. and Stanley, G. J.* Galactic survey at 400 Mc/s between declinations -17° and -49° . 2234.
- MacGillivray, D. Singer, J. J. jr. and Rosenbaum, J. H.* Metal-solution potentials of nickel in foreign ion solutions. 2481.
- McGinn, John H.* Observations on the radial flow of water between fixed parallel plates. 1308.
- McGinnis, C. L.* Disintegration of 5.8-day Sb^{120} . 1153.
- , *Carl L.* Radioactivity of In^{117} and S^{117} . 71.
- McGowan, F. K. and Stelson, P. H.* Angular distribution of gamma rays from Coulomb excitation. 2027.
- *s. Stelson, P. H. 590, 1787, 2026.*
- MacGregor, M. H., Ball, William P. and Booth, Rex.* Nonelastic cross sections at 14 Mev. 1597.
- McGrew, C. s. Arnold, W. H. 1755.*
- McGruer, J. N. s. Levine, S. H. 54.*
- McGuire, A. D. s. Camac, M. 1344.*
- , *Frederick L. s. Morris, A. 1884.*
- McHale, J. L. and Thaler, R. M.* Variational principle for tensor forces. 600.
- Variational expressions for N-channel collision parameters. 1165.
- *s. Biedenharn, L. C. 1567, 1571.*
- *s. Goldstein, M. 1568.*
- *s. Thaler, R. M. 1165.*
- Machida, S. and Tamura, T.* Photomeson production from heavy nuclei. 2355.
- *s. Taketani, M. 2355.*
- Machin, C. F.* Semi-conductor high power rectifiers. 2175.
- Macht, Hans G.* Increase of the earth's dipole moment. 519.
- Physikalische Darstellung des magnetischen Restfeldes der Erde. 2563.
- McHugh, B. s. Pearcy, T. 203.*
- McIlraith, A. H.* Properties of fine virtual slits formed by oblique reflection at cylindrical surfaces. 313.
- Measurement of the coherence of a light wave by means of a Lloyd mirror. 2197.
- McIntosh, J. S. s. Aron, W. 244.*
- McIntyre, John A. and Hofstadter, Robert.* Scattering of 192-Mev electrons from the deuteron. 983.
- — and *Hansen, W. W.* Electron scattering from hydrogen, deuterium and carbon at 190 Mev. 88.
- McIsaac, L. D. s. Kreger, W. E. 1159.*
- MacIver, Donald S. and Emmett, Paul H.* Surface area measurements on carbon black produced by the catalytic decomposition of carbon monoxide over iron. 2448.
- Mack, J. E. s. Swings, P. 1291.*
- , *John s. Curtis, C. W. 16.*
- MacKay, A. L.* Refractive index determination for anisotropic crystals. 2191.
- McKay, Carlyle D. s. Scheidegger, Adrian E. 1928.*
- MacKay, D. M.* High-speed electronic-analogue computing techniques. 1492.
- *s. Bergman, G. D. 1668.*
- McKay, H. A. C. s. Glueckauf, E. 2048.*
- , *K. G. s. Chynoweth, A. G. 2131.*
- Mackay, R. W. s. Silver, R. S. 30.*
- Macke, Wilhelm.* Wave mechanical treatment of the Fermi gas. 1928.
- Relativistisches Zweikörperproblem der Quantenmechanik. I. II. 2265.
- Wellenmechanische Behandlung von Vielkörperproblemen. 2269.
- McKeague, R.* Disintegration produced in the light elements of nuclear emulsions by 950 MeV protons. 2363.
- *s. Duke, P. J. 774.*
- McKee, J. S. C. s. Bransden, B. H. 2404.*
- McKeehan, Wayne s. Jacquez, John A. 2192.*
- McKelvey, J. P. and Longini, R. L.* Recombination of injected carriers at dislocation edges in semiconductors. 2116.
- McKenna, R.* Charakteristische Merkmale der Kegel-Platte-Viskosimeter. 1941.
- MacKenzie, K. R. s. Burkig, V. C. 1797.*
- *s. Soneit, C. P. 976, 1591.*
- , *R. B. s. Ares, R. 225.*

- McKeown, M. s. Mihelich, J. W. 68.
 — s. Scharff-Goldhaber, Gertrude. 1552.
 —, Marilyn s. McReynolds, A. W. 986.
 Mackin, J. s. Lane, W. 2559.
 —, J. L. s. Kreger, W. E. 1159.
 —, R. J. jr. Mims, W. B. and Mills, W. R. jr. Gamma rays from the deuteron bombardment of carbon-13. 956.
 McKinley, J. D. jr. Isolation of HO_2 from the hydrogen, oxygen diffusion flame. 1116.
 — and Vance, John E. Vapor pressure of zinc between 150° and 350°C . 1962.
 Mackinnon, L. Absorption of 10 Mc/sec sound pulses by a superconducting polycrystalline tin rod. 1429.
 Mackintosh, I. M. and Allen, J. W. Lifetime of added carriers in InSb. 1018.
 Macklin, P. s. Koerts, L. 1156.
 — s. Lidojsky, L. 1162.
 —, R. L. and Banta, H. E. Tritium production from lithium by deuteron bombardment. 53.
 — s. Gibbons, J. H. 1144.
 McLachlan, Dan jr. Neglected mathematics in the solution of vibration problems. 1939.
 MacLaren, R. O. and Gregory, N. W. Vapor pressure of iron (II) bromide. 2319.
 McLaughlin, E. s. Cummings, G. A. McD. 2319.
 —, James E. jr. and Blatz, Hanson. Costs and safe operation of modified irradiation unit. 702.
 — s. Solon, Leonard R. 777.
 —, Ralph D. s. Conway, John G. 401, 1612.
 McLean, D. s. Franks, A. 866.
 —, D. J. s. Hodge, A. J. 2223.
 MacLean, William R. Theorie der Wellenausbreitung in nicht-homogenen Medien. 847.
 — Theory of strong electromagnetic waves in massive iron. 1641.
 —, William R. Criteria for the amplitude stability of a power oscillator. 1668.
 MacLellan, A. G. Statistical-mechanical theory of surface tension. 2444.
 McLellon, Waldron M. s. Myers, William G. 2557.
 MacLennan, I. A. and MacDonald, A. D. Effect of mean free path variation on high-frequency breakdown. 1050.
 McLennan, J. E. s. Allen, N. P. 913.
 McLeod, John H. Axicon: optical element. 1067.
 —, R. R. Coulomb excitation of $\text{In}^{115\text{m}}$ by alpha particles. 1790.
 MacLeod, S. and Bartlett, N. R. Human reaction time during dark adaptation. 699.
 McLeod, T. S. s. Reed, R. D. C. 208.
 McLernon, F. s. Bay, Z. 583.
 McLoughlin, J. R. s. Tobolsky, A. V. 2439.
 McMahan, B. s. Berman, A. 1638.
 —, James. Lower bounds for the electrostatic capacity of a cube. 2453.
 —, M. E. s. Firlie, T. E. 2479.
 McMillan, Clara M. de s. Mallmann, C. A. 1579.
 —, D. R. and Robeson, Andrew. Comparison of the ultrasonic velocities in a series of carbonates and acetates. 548.
 MacMillan, R. H. and Fuller, A. T. Conditions for aperiodicity in linear systems. 728.
 McMillan, W. G. Exchange in the Thomas Fermi-Dirac model. 367.
 — Nuclear stability curve. 565.
 —, W. R. Mechanical analog computer for reading electron diffraction patterns. 1004.
 Mac Millan, William R. s. Gulbransen, Earl A. 2214.
 McNair, A. Glover, R. N. and Wilson, H. W. Decay of ^{40}K . 2371.
 McNally, J. R. jr. s. Griffin, P. M. 1399.
 — s. Sluis, K. L. Vander. 1399.
 — s. Werner, G. K. 1535.
 McNaughton, G. S. s. Collinson, E. 612.
 Macnee, A. B. s. Talpey, T. E. 849.
 McNeill, K. G. Branching ratio of the D-D reactions. 767.
 — Thonemann, P. C. and Price, F. V. D-D reaction as a standard neutron source. 1985.
 MacNeille, S. M. and Dixon, E. O. Simulator for calculating the reflectance and transmittance of multilayer interference films. 688.
 McNicol, R. W. E. s. Thomas, J. A. 521.
 McNown, John et Kravtchenko, Julien. Théorie des ports rectangulaires à profondeur constante. 548.
 McOmie, J. F. W. s. Elbeih, I. I. M. 369.
 Macpherson, I., Major, J. V., Parkash, Om, Rochester, G. D. and Short, A. M. Two K^- -interactions. 393.

- Macpherson, A. C.* Measurement of micro-wave nonreciprocal four-poles. 1670.
- Macrae, J. C. and Ryder, C.* Thermal expansion of coal. 1900.
- McReynolds, A. W., Augustyniak, W., McKeown, Marilyn and Rosenblatt, D. B.* Neutron irradiation effects in Cu and Al at 80° K. 986.
- *s. Smith, L. W.* 417, 1376.
- McVicar, D. D. s. Holmes, J. E. R.* 225, 1329.
- McWeeny, R.* Basis of orbital theories. 189.
- Density matrix in self-consistent field theory. I. Iterative construction of the density matrix. 2267.
- McWhirter, R. W. P. s. Heron, S.* 1614.
- McWhorter, A. L. s. Kingston, R. H.* 1221.
- Maczuk, J. s. Henkels, H. W.* 473.
- Madan, M. P.* Diffusion coefficients and law of molecular interaction. 2336.
- *s. Srivastava, B. N.* 2073, 2311.
- Madansky, L. and Owen, George E.* Heavy particle stripping. 1772.
- and *Rasetti, F.* Decay of Co⁵⁷. 585.
- *s. Cool, R. L.* 423.
- Maddin, R. and Cottrell, A. H.* Quench hardening in aluminium single crystals. 169.
- Madelung, O.* Halbleitende Einzelphase. 1215.
- *Tevordt, L. und Welker, H.* Theorie der magnetischen Sperrschicht in Halbleitern. 128.
- , *Otfried.* Galvanomagnetische Effekte in Halbleitern. 1854.
- Theorie der Wärmeleitfähigkeit isotroper Halbleiter im Magnetfeld. 2115.
- Leitungsmechanismus in homöopolaren Halbleitern. 2117.
- Madera, A.* Grundlagen der Steuerungstechnik bei der Elektroautomatisierung von Industrieanlagen. Anschauliche Darstellung automatischer Vorgänge. 2276.
- Madey, Richard Bandtel, Kenneth C. and Frank, Wilson J.* Radio-frequency fine structure of the photon beam from the Berkeley synchrotron. 390.
- Madia, Giorgina.* Criteri per il progetto di trasformatori per telecomunicazioni. 2501.
- Madonna, L. A. s. Pound, G. M.* 2316.
- Mador, I. L. and Williams, M. C.* Stabilization of free radicals from the decomposition of hydrazoic acid. 1623.
- Mador, I. L., Wallis, R. F., Williams, M. C. and Herman, R. C.* Production and bleaching of color centers in X-rayed alkali halide crystals. 445.
- , *L. L.* Stabilization of methyl radical. 2414.
- Madsen, James F.* Transitorized oscillator. 2512.
- , *V. M. s. Burch, D. S.* 1048.
- Maecker, H.* Brennkammer für Hochstrombögen in verschiedenen Gasen. 1049.
- Zylindrischer Bogen für hohe Leistungen. 2165.
- und *Peters, Th.* Einheitliche Dynamik und Thermodynamik des thermischen Plasmas. 1867.
- Maeda, Hiroshi s. Hirono, Motokazu.* 2247.
- , *K. and Izaki, M.* Applikation of modern mathematical statistics to the lunar tidal analysis of ionospheric height. 2574.
- , *Kaichi and Suda, Tomoshige.* Annual and diurnal variations of cosmic ray intensity and the temperature effect. 2402.
- , *Ken-ichi.* Effects of atmospheric motion and dynamo current on the electron density of the ionosphere. 2574.
- Dynamo-theoretical conductivity and current in the ionosphere. 2574.
- Distortional characteristics of the world-wide distribution and diurnal variation of the ionospheric F₂-layer associated with the geomagnetic variation. 2574.
- On the electrical conductivity of the upper atmosphere. 2575.
- , *Seijiro s. Hirone, Tokutaro.* 118.
- Maeder, D.* Impulsspektrographen mit logarithmischer Energieskala. 554.
- und *Stachelin, P.* Komplexe Betaumwandlungen von Na²⁵ und Al²⁵. 1149.
- *s. Gerber, H. J.* 1579.
- *s. Munoz, M. Garcia.* 1122.
- *s. Wapstra, A. H.* 1782.
- Maenchen, George Powell, Wilson M., Saphir, George and Wright, Robert W.* π^- -proton interactions at 4.5 Bev. 2001.
- *Fowler, William B., Powell, Wilson M., Saphir, George and Wright, Robert W.* Production of unstable particles in 4.5-Bev π^- -p collisions. 1753.
- *s. Fowler, William B.* 1528.
- *s. Wright, Robert W.* 1797.

- Maerker, R. E.* Estimation of the critical τ period in latent-image formation by intermittent exposures. 163.
- Maesen, F. van der and Brenkman, J. A.* Solid solubility and the diffusion of nickel in germanium. 1650.
- Maeyer, L. de s. Eigen, M.* 1041.
- Maffett, A. L. s. Siegel, K. M.* 375, 1945.
- Magat, M. s. Brot, C.* 2168.
- , *Michel.* Localisation de l'hydrogène dans les cristaux au moyen des méthodes spectrométriques infra-rouges. Hyperfréquence, spectre Raman. 631.
- Cinétique de la polymérisation. 1837.
- *s. Chapiro, Adolphe.* 637.
- Magee, John L.* Schéma de diffusion des radicaux autour des trajectoires des particules ionisantes dans les liquides. 611.
- Magill, Arthur A.* Variation in distortion with magnification. 1067.
- Variation in distortion with magnification. 2531.
- Magleby, E. H. s. Smith, J. R.* 1753.
- Maglič, Bogdan C.* Equipment for the production of neutrons with a 1,5 MeV accelerator. 232.
- , *Bogdan s. Subotić, Sonja.* 767.
- Magno, Frank C., s. Skau, Evald L.* 1939.
- Magnusson, L. B., Engelkemeir, D. W., Freedman, M. S., Porter, F. T. and Wagner, F. jr.* Alpha decay of Np^{237} . 1160.
- *Studier, M. H., Fields, P. R., Stevens, C. M., Mech, J. F., Friedman, A. M., Diamond, H. and Huizenga, J. R.* Berkelium and californium isotopes produced in neutron irradiation of plutonium. 579.
- *s. Fields, P. R.* 2370.
- *s. Engelkemeir, D.* 1551.
- Magun, S. s. Janner, K.* 760.
- Mah, Alla D.* Heats of formation of chromium oxide and cadmium oxide from combustion calorimetry. 1509.
- Mahan, A. I. and Malmborg, W. F.* Radiation characteristics of semicircular, circular and rectangular surface sources. 1685.
- Mahl, Hans s. Hess, Kurt.* 267.
- † *Mahler, G. † und Mahler, K.* Physikalische Aufgabensammlung, mit den Ergebnissen. 533.
- Physikalische Formelsammlung. 533.
- , *H. R. and Green, D. E.* Metallo-flavoproteins and electron transport. 872.
- Mahler, K. s. Mahler, G.* 533.
- Mahmoud, K. A. s. Cook, J. R.* 230.
- Mahon, H. P. jr. s. Dunlap, W. C.* 1027.
- Mahony, J. J.* Analytical treatment of twodimensional supersonic flow. II Flow with weak shocks. 1310.
- and *Meyer, R. E.* Analytical treatment of two-dimensional supersonic flow. I. Shock-free flow. 1310.
- Mai, K. L. and Babb, A. L.* Scintillation counter for vapor-phase analysis. 1978.
- Maienschein, F. C. s. Campbell, E. C.* 1153.
- Maier, Josef.* Elementarprozeß der Elektron-Elektronstreuung mit zählrohr-gesteuerter Nebelkammer. 1383.
- , *Karl W.* Instrument for rapid evaluation of time-displacement curves. 13.
- , *W. und Wimmel, H.* Messungen der Anthracenabsorption bei 3800 Å mit linear polarisiertem UV an einem Naphthalin-Anthracen-Mischkristall. 1194.
- , *Wilhelm und Rudolph, Heinz Dieter.* Ultraschallabsorption in binären flüssigen Gemischen mit dimer assoziierender Komponente. 208.
- *s. Mez, Arthur.* 1107.,
- Maier-Leibnitz, H.* Experimentelle Arbeiten zur Physik sehr schneller Teilchen. 2387.
- Nobelpreis für Professor Bothe. 1090.
- Maillard, Jules s. Betticher, André.* 696.
- Mairan, T. H. and Lamb, W. E. jr.* Triplet fine structure of helium. 1397.
- Main, Robert M. s. Ise, John jr.* 2346.
- Maine, A. E. s. Walker, D. F.* 1243.
- Beveridge, J. Mair. Pignocco, Arthur J. and Rossini, Frederick D.* Fifty-stage apparatus for distillation at very low pressures. 726.
- Maita, J. P. s. Morin, F. J.* 2471.
- Maitland, C. G. and McCoubrey, A. O.* Effect of temperature on the lifetime of metastable mercury molecules. 1000.
- Maitra, J. C. s. Dasgupta, D. R.* 1005.
- Maitrot, M. et Marguin, M. G.* Mesure de l'énergie des électrons enregistrés dans les émulsions nucléaires. 2340.
- Major, D. Perry, F. R. and Phillips, K.* 20 MeV betatron for X-ray therapy. 874.
- *s. Allen, K. R.* 1170.

- Major, J. K. and Biedenharn, L. C. Sargent diagram and comparative half-lives for electron capture transitions. 1576.
- , J. V. s. Macpherson, I. 393.
- Majorana, Quirino. Inerzia non appare sempre proporzionale al peso. 544.
- Cinematica relativistica. 1091.
- Majumdar, K. s. Varshni, Y. P. 2408.
- , R. C. Gupta, S. and Trehan, S. K. Classical equations of a point particle in a symmetric meson field. 900.
- Makansi, M. M. Muendel, C. H. and Selke, W. A. Determination of the vapor pressure of sodium. 2319.
- Makas, A. S. Developments in polarimetry with dichroic polarizers. 2194.
- and Shurcliff, W. A. Silver chloride polarizer for the infrared. 1680.
- Maki, Ziro and Sato, Masatomo. Strong coupling approximation in meson-nucleon scattering. 2396.
- Makram, Helmy. Etude de la diffusion des ions à travers les revêtements métalliques électrolytiques. II. Effet de concentration. 2425.
- s. Bonnemay, Maurice. 2073.
- Malament, Sylvia s. Oster, Gerald. 1622.
- Malamud, H. s. Hammer, J. 779.
- Malan, D. J. Décharges orageuses intermittentes et continues de la colonne de charge négative. 1701.
- and Schonland, B. F. Charge distribution and electrical processes deduced from lightning measurements. 529.
- Malavard, Lucien et Boscher, Jean. Modèle analogique électrique pour l'étude de la flexion des poutres. 358.
- Maldonado, C. D. and Retherford, R. C. Semira dom sparking in a short air gap. 839.
- Malenka, B. J. Asymmetry in deuteron pickup by high-energy polarized protons. 1378.
- Malinowski, Jordan. Mechanism of the photographic action of X-rays. 2533.
- Malkevitch, M. Ss. Vertikalverteilung der Temperatur in der Atmosphäre. 1088.
- Malin, Murray E. s. Kistiakowsky, G. B. 31.
- Malkus, Willem V. R. Spatial spectrum for turbulent shear flow. 17.
- Mallach, Werner. Temperaturverlauf von Drähten in Patientier- und Härteanlagen. 2311.
- Mallemann, René de. Suhner, François et Grange, Jean. Pouvoirs rotatoires magnétiques de quelques carbures éthyléniques liquides. Variation avec la température. 2415.
- Mallery, P. Transistors in 4A toll cross-bar switching. 478.
- Mallmann, C. A. Double beta coincidence spectrometer. 1981.
- Aten, A. H. W. jr. Bes, D. R. and McMillan, Clara M. de. Gamma rays of tellurium -131 and tellurium-129. 1579.
- Malm, R. E. s. Holland, R. E. 1787.
- Malmberg, Philip R. Elastic scattering of protons from Li^7 . 1375.
- Elastic scattering of protons from Li^7 . 2389.
- Malmborg, W. F. s. Mahan, A. I. 1685.
- Maloof, S. R. and Erard, H. R. Critical evaluation of the norelco high angle X-ray spectrometer for elastic strain measurements. 506.
- Malpica, José. Mireles. Semi-absolute measurements of voltage and current. 1843.
- Semi-absolute electrostatic voltmeter. 1843.
- Malvano, R. s. Bonfiglioli, G. 462.
- s. Demichelis, Francesca. 1149.
- Mabaux, Pierre. Recherche d'une loi intrinsèque de composition des vitesses. 1923.
- Malvicini, A. s. Facchini, U. 1485.
- Maly, Miroslav. Analytischer Entwurf eines Triplets und seiner Modifikationen. 1458.
- Manassen, J. s. Aten, A. H. W. jr. 964.
- Mandel, H. Schallgeschwindigkeit und elastische Konstanten von Mischkörpern. 1734.
- , John s. Martin, Gordon M. 1287.
- , L. Square wave response method of analysing process control systems. 195.
- Realizable light gain in photoelectronic image intensifiers. 308.
- s. Persson, E. 1724.
- , Mme Liba s. Perey, Mlle Marguerite. 2551.
- , M. and Barrett, A. H. Pure rotational spectra of the thallium halides. 1816.
- s. Barrett, A. H. 437.
- s. Honig, A. 785.
- , P. s. Rodesch, J. 875.
- , Paul s. Perey, Mlle Marguerite. 2551.

- Mandelkern, Leo s. Roberts, Donald E.* 1413.
- Mandell, Bernard s. Humpherey, George.* 1274.
- Mandelstam, S.* Dynamical variables in the Bethe-Salpeter formalism. 1296.
- Mandeville, C. E. and Albrecht, H. O.* Photostimulated emission of some activated alkali halide phosphors. 500.
- — Phosphorescence of and energy storage in some ultraviolet emitting phosphors. 863.
- — Storage of energy in beryllium oxide. 1825.
- *Varma, Jagdish and Saraf, Babulal.*
- Iridium-194. 957, 1155, s. *Albrecht, H. O.* 1071.
- *s. Hans, H. S.* 1163.
- *s. Potnis, V. R.* 1366.
- *s. Rothman, M. A.* 1163.
- *s. Saraf, B.* 1163.
- *s. Swann, C. P.* 1154.
- *s. Varma, Jagdish.* 586.
- Mandl, F. and Regge, T.* Pion production for polarized protons. 235.
- Reaction $p + p \rightarrow \pi^+ + d$ with polarized protons. 1527.
- *Georg.* Begründung der Strahlenoptik aus der Maxwellschen Feldtheorie. 491.
- Mandleberg, C. J. s. West, D.* 2030.
- Mandrot, R. de.* Magnétorésistance du cobalt et température. 1852.
- Manecke, C. und Bonhoeffer, K. F.* Elektrische Leitfähigkeit von Anionenaustauschermembranen. 2326.
- Manek, Franz.* 50 Jahre Bildmeßgeräte Zeiss. 2256.
- Manes, Milton Hofer, L. J. E. and Weller, Sol. Zu Christiansen, J. A.:* Chemical kinetics and equilibrium. Law of integral powers in kinetics. 2325.
- Manfredini, A. s. Amaldi, E.* 2352.
- *s. Castagnoli, C.* 387, 392.
- *s. Chamberlain, O.* 2003.
- Manfrino, Renato.* Preparazione delle superfici e misura della resistività di cristalli semiconduttori. 2475.
- Mange, P.* Diffusion processes in the thermosphere. 1487.
- Mangenot, M.* Dispersion de réfraction du benzène et de quelques dérivés benzéniques avec la température. 1255.
- Mangin, André s. Forestier, Hubert.* 2274.
- Maniey, J. Cheutin, A. Daudel, P. Hugel, M. F. et Pascal, A.* Synthèse à l'échelle microchimique du triphényléthylène marqué par le radio-carbone. 552.
- Manildi, J. F.* Response time in temperature-indicating instruments. 210.
- Mankin, Paul A.* Measurement of liquid flow by positive-displacement meters. 1726.
- Manley, D. L. s. Crasemann, Bernd.* 956, 1546.
- *Gordon.* Changes in world glaciation. 1486.
- *H.* Rock magnetism as a temperature indicator. 2241.
- Mann, A. s. Falk, G.* 1118.
- *A. K.* Elastic scattering of 0.41 and 0.66 Mev gamma rays. 1173.
- Elastic scattering of gamma rays. 2396.
- *Stephens, W. E. and Wilkinson, D. H.* Evidence for an independent particle state of C^{12} at high excitation. 588.
- *s. Stephens, W. E.* 576, 954.
- *D. E. and Plyler, Earle K.* v_9 fundamental of C_2F_6 . 433.
- *Acquista, N. and Plyler, Earle K.* Vibrational spectrum of bromotrifluoroethylene. 1815.
- *Meal, Janet Hawkins and Plyler, Earle K.* Vibrational spectrum of tetrabromoethylene. 431.
- *K. C. Milley, D. C. and Thompson, J. A. L.* Ring-focus collection in thin-lens nuclear spectrometers. 556.
- *Karl Ernst.* Wirkung kleinster Berylliumgehalte in Magnesiumlegierungen. 868.
- *Leonard A. Grandey, Ray A. and Clark, Arnold F.* Cross sections for meson-induced stats in Ilford G 5 nuclear emulsions. 89.
- *Lloyd G. s. Bowman, Harry R.* 578.
- *Paul August.* Summation von Fourierschen Reihen mittels der Laplaceschen Transformation. 1707.
- *W. B.* Use of Callendar's Radio-Balance for the measurement of the energy emission from radioactive sources. 932.
- Radiation balance for the microcalorimetric comparison of four national radium standards. 1142.
- Mannari, Isao s. Tomita, Kazuhisa.* 2314.
- Mannechen, W. und Baumann, M.* Aufnahme von Wasserstoff durch Blei

und Legierungen des Bleies mit Magnesium und Kalzium. 2215.

Manning, G. s. *Bunbury, D. St. P.* 1150.

— s. *Devons, S.* 1150, 2379.

—, *Irwin and Tisza, Laszlo.* Variational principles in irreversible thermodynamics. 32.

—, *L. A. s. Villard, O. G.* 2561.

—, *W. M. s. Ghiorso, A.* 1322.

Mannos, *Murray.* Eigenvectors of matrix polynomials. 895.

Manowitz, *Bernard.* Use of kilocurie radiation sources. 1983.

Manring, *Edward R. s. Ting, Yu.* 1423.

Mansfeld, *W.* Rauschfaktor einer Verstärker-Eingangsstufe. 152.

Mansfield, *R.* Magneto-resistance effect in indium antimonide. 1034.

— Impurity scattering in semiconductors. 1216.

—, *W. V. s. Norton, K. A.* 2261.

Manuel, *A. J. s. Leech, J. W.* 1847.

Manus, *Claude Béné, Georges Extermann, Richard et Mercier, Robert.* Résonance magnétique nucléaire dans les champs très faibles. I. Spectroscopie hertzienne pour l'observation de la résonance entre 15 et 2 kc/s. 815.

— s. *Cagnac, Bernard.* 815.

Many, *A. Gerlich, D. and Harnik, E.* Measurements connected with carrier deficit phenomena in germanium. 1431.

Many, *A., Margoninski, Harnik E., and Alexander, E.* Relaxation effects in recombination velocity on germanium surfaces under transfer electrostatic fields.

— s. *Braun, E. A.* 446.

— s. *Harnik, E.* 1652.

Manzotti, *M.* Mechanical-electrical transducer of simple design. 2550.

Mapes, *Gerard S. s. Wilson, John W. jr.* 2210.

—, *J. E. and Eischens, R. P.* Infrared spectra of ammonia chemisorbed on cracking catalysts. 216.

Mapleson, *W. W. and Whitlock, W. S.* Apparatus for the accurate and continuous measurement of the earth's electric field. 1914.

Mapother, *Dillon s. Kilpatrick, John E.* 1647.

—, *D. E. s. Mould, R. E.* 127.

Mara, *R. T. Sutherland, G. B. B. M. and Tyrell, H. V.* Infrared spectrum of barium titanate. 1826.

Marathe, *E. V.* Half-life of yttrium-90. 1780.

Maravall, *D.* Theoretische Untersuchungen über die Zufallsfunktionen der Mikrophysik. 1091.

Marble, *Frank E.* Servo-stabilization of low-frequency oscillations in liquid propellant rocket motors. 2297.

March, *N. H.* Equation of state of elements from the Thomas-Fermi theory. 190.

— Equations of state of elements from the Thomas-Fermi theory. II. Case of incomplete degeneracy. 923.

— Virial theorem in free electron and generalized Thomas-Fermi models. 1932.

— Virial theorem in the Thomas-Fermi theory. 2334.

— and *Plaskett, J. S.* Relation between the Wentzel-Kramers-Brillouin and the Thomas-Fermi approximations. 2267.

— s. *Donovan, B.* 9.

—, *P. V. s. Duke, P. J.* 774.

— s. *Lock, W. O.* 768, 769.

Marchal, *Jean et Benoit, Henri.* Contribution des moments électriques à l'étude des solutions de macromolécules en chaîne. 636.

— Contribution des moments électriques à l'étude des solutions de macromolécules en chaîne. 802.

Marchin, *J. M. s. Wyon, G.* 262.

Marco, *A. de s. Alexander, G.* 561.

Marcou, *R. J. s. Pfister, W.* 180.

Marcus, *Alma s. Lehovec, Kurt.* 1229, 2135.

—, *J. A. s. Connell, R. A.* 1427.

— s. *Plumb, Harmon, H.* 1740.

—, *Norman.* Blackbody standard. 218.

Marder, *S. Bennett, W. Wu, C. S. and Hughes, V. W.* Effect of a static electric field on positronium formation. 1331.

Maréchal, *A.* Projecteurs pour ondes courtes. 1247.

—, *André.* Utilisation du calcul matriciel en optique paraxiale. 1684.

— et *Croce, Paul.* Filtre de fréquences spatiales pour l'amélioration du contraste des images optiques. 2524.

Marel, *L. C. van der, Broek, J. van den, Wasscher, J. D. and Gorter, C. J.* Susceptibility of $\text{CuCl}_2 \cdot 2\text{H}_2\text{O}$ powder in the antiferromagnetic and paramagnetic states. 1019.

- Marg, Elwin and Reeves, Johnie L.* Accommodative response of the eye of an aged cat to electrical stimulation of the ciliary ganglion. 172.
- Margarit, Adrián.* Determinacion de la granulometria de los cementos mediante la pipeta de Andreasen modificada. 2547.
- Margenau, H. and Rosen, Philip.* Interaction of closed shells. 1400.
- *s. Kivel, B.* 1809.
- *Henry.* Electron effects in spectral line broadening. 1400.
- *s. Meyerott, Roland E.* 1400, 1810.
- Margolis, B. Kofoed-Hansen, O. and Nagel, E.* Analysis of low-energy neutron-resonance cross sections. 1553.
- Marconinski, Y. s. Harnik, E.* 1652.
- *s. Many, A.* 1652.
- Margrave, John L. s. Carter, Giles F.* 1008.
- Marguerat, E. s. Pate, W.* 235.
- Marquin, M. G. s. Maitrot, M.* 2340.
- Margulies, R. S.* Positive pion scattering by hydrogen at 300 Mev. 1601.
- Positive pion scattering by hydrogen at 260, 300 and 400 Mev. 2039.
- Mariée, Michel s. Boullé, André.* 102.
- Marin, Joseph s. Hu, L. W.* 15.
- *P. C.* Measurement of the half-life of radon with a Curie-type ionization chamber. 1747.
- Marinelli, L. D. s. Clark, R. K.* 1276.
- Maringer, R. E.* Internal friction of molybdenum during tensile deformation. 507.
- Marion, J. B. and Chapman, R. A.* Low-lying level structure of the Zn^{65} nucleus. 1574.
- *Bonner, T. W. and Cook, C. F.* Reactions $T^3(p, n)He^3$, $Li^7(p, n)Be^7$, $Be^9(p, n)B^9$, and $F^{19}(p, n)Ne^{19}$. 1144.
- *Brugger, R. M. and Bonner, T. W.* (d, n) reactions in O^{16} and N^{14} . 1773.
- and *Chapman, R. A.* Cross section for the $Si^{28}(n, p)Al^{28}$ reaction. 2366.
- s. Bonner, T. W.* 2011.
- *s. Brugger, R. M.* 1143.
- *s. Harlow, M. V.* 1570.
- Jerry B. and Brugger, Robert M.* Neutron-induced reactions in fluorine. 1143.
- and *Chapman, Richard A.* Low-lying level structure of the Zn^{65} nucleus. 1571.
- Maris, Th. A. J.* Generalization of the liquid drop model of fission. 1545.
- Fission theory and semiempirical mass formula. 2369.
- Mark, H. s. Frank, H. P.* 453.
- *Hans and Goodman, Clark.* Angular distribution of neutrons from $O^{18}(p, n)F^{18}$. 2375.
- and *Paulissen, George.* Cascade transitions between rotational levels in odd A nuclei. 592.
- *McClelland, Clyde and Goodman, Clark.* Electric excitation of nuclei near the closed 50 proton and neutron shells. 590.
- — Proton bremsstrahlung. 590.
- — Electric excitation of certain medium-weight nuclei by protons. 2010.
- *s. McClelland, Clyde.* 410 590.
- *s. Paulissen, George.* 1788.
- *Peter s. Kallmann, Hartmut.* 1863.
- Markham, Jordan J.* Comparison of the Condon and the adiabatic approximations for an impurity center. 1649.
- Markovic, B. s. Pejnovic, Dusan.* 251.
- Markovitz, H. Elyash, L. J. Padden, F. J. jr. and De Witt, T. W.* Cone-and-plate viscometer. 1629.
- *s. DeWitt, T. W.* 1629.
- *Hershel.* Property of Bessel functions and its application to the theory of two rheometers. 1707.
- Markow, Basil and Gallas, William.* Isotope capsule for pneumatically operated calibration facilities. 703.
- Markstein, G. H. and Schwartz, D.* Interaction between pressure waves and flame fronts. 1949.
- Markus, Gabor.* Method for the calculation of electrode potentials in polarography. 2157.
- Marmusse, Claude.* Éléments de la théorie thermodynamique des macromolécules-polyélectrolytes. I. Théorie scalaire des macromolécules en solution diluée. 2436.
- Marmier, P. and Boehm, F.* Energy levels of Hf177. 72.
- *s. Murray, J. J.* 579, 586.
- Marmion, W. J.* Epoxide resins. 1202.
- Maron, Samuel H. and Fok, Shiu Ming.* Rheology of synthetic latex. V. Flow behavior of low-temperature GR-S latex. 2439.

- Maron, Samuel H. and Levy-Pascal, Arie E.* Rheology of synthetic latex. VI. Flow behavior of neoprene latex. 2439.
- *Elder, Max E. and Ulevitch, Irwin N.* Determination of surface area and particle size of synthetic latex by adsorption. VI. Critical micelle concentrations of various emulsifiers in latex. 2430.
- Maronny, G. et Valensi, G.* Confrontation expérimentale du pH standard aux pH référés au chlorure de potassium, thermodynamiquement définissables. 2152.
- Marquardt, W. s. Nowotny, H.* 2545.
- Marques, Branca Edmée.* Os actinídios e uma pesquisa de neptunio e de plutônio na pechblenda da urgeirica. 766.
- Marquet, Madeleine s. Croce, Paul.* 323.
- Marquez, L. and Costa, N. L.* Formation of ^{32}P from atmospheric argon by cosmic rays. 1389.
- Marr, G. V. and Nicholls, R. W.* Emission of the λ 4050 Å bands and an associated violet continuum in oxyacetylene flames. 1116.
- Marre, D. la s. Osterberg, H.* 727.
- Marriott, F. H. C. s. Pirene, M. H.* 1903.
- *J. and Craggs, J. D.* Ionization and dissociation by electron impact. I. Trifluoromethyl halides. 1179.
- *s. Craggs, J. D.* 1054.
- *R. s. Burhop, E. H. S.* 1614.
- Marris, A. W.* Nusselt modulus as a function of friction factor, Reynolds and Prandtl moduli, for heat transfer to a fluid flowing turbulently through a tube of circular section. 2312.
- Experimental investigation of the heat transfer to turbulently flowing pressurized air. 2313.
- Marschall, Charles s. Lumbroso, Henri* 1617.
- Marschall, H. und Meyer, G.* Kernstreuung schwach relativistischer Myonen. 775.
- *s. Behr, J. v.* 1164.
- *s. Falk, G.* 1926.
- Marsden, D. G. H. s. Linnett, J. W.* 1115.
- Marsh, J. B. Hogg, J. F. and Cambray, R. S.* Pressurized γ -radiation monitor for use in inflammable atmospheres. 2230.
- Marshak, H. and Newson, H. W.* Total neutron cross sections in the kilovolt region: Sc, V, Mn and Co. 1362.
- Marshak, R. s. Okubo, S.* 1758.
- *s. Regge, T.* 1753.
- *R. E.* Indépendance de charge en physique nucléaire. 901.
- Marshall, Henry P. and Grunwald, Ernest.* Molar activity coefficients of electrolytes predicted from conductivity data. 2153.
- *J. Marshall, L. and Nedzel, V. A.* Differential p-p scattering cross sections at 419 Mev. 1377.
- *s. Carvalho, H. G. de.* 416.
- *s. Heiberg, E.* 602.
- *s. Marshall, L.* 1376.
- *J. F. s. Pomerantz, M. A.* 1862, 2133.
- *s. Shatas, R. A.* 88.
- *John H.* Liquid argon ionization chambers of centimeter size. 929.
- Shapes of beta-ray spectra. 2031.
- *L.* Inelastic polarization and nucleon momentum distribution. 1590.
- and *Marshall, J.* Direction of proton spin polarization produced by elastic scattering. 1376.
- *s. Carvalho, H. G. de.* 416.
- *s. Heiberg, E.* 602.
- *s. Marshall, J.* 1377.
- *W.* Antiferromagnetism. 464.
- Spin-wave theory of antiferromagnetism. 465.
- Structure of magneto-hydrodynamic shock waves. 819.
- Martel, M.-T.* Photométrie et polarisation de quelques nébuleuses diffusantes. 707.
- Martelli, G. s. Bertanza, L.* 554.
- Marti, W.* Elektronische Regulierung der Ladespannung von Kondensatoren in Funkenerzeugern. 1681.
- Martin, A. J.* High-conductance cold-trap. 192.
- *C. S. s. Leck, J. H.* 1722.
- *D. G. E. and Parry, G.* Low intensity gamma rays in the $\text{ThC}'\text{C}'$ and $\text{ThC}''\text{D}$ transitions. 949.
- — Electromagnetic radiation from radium E. 2361.
- *D. H. s. Bates, L. F.* 170, 2104.
- *D. W. Cork, J. M. and Burson, S. B.* Radiations from Ce^{143} (33 hr). 1158.
- *s. Burson, S. B.* 1158.
- *s. Cork, J. M.* 964, 2377.
- *David W. Burson, S. Bradley and Cork, James W.* Decay of Ca^{49} (8.4 min). 967.
- *E. E. s. Trolan, J. K.* 1052.

- Martin, G. A. s. Hollander, L. 1679.
- , G. M. Roth, F. L. and Stiehler, R. D. Behavior of nonpigmented rubber vulcanizates in tension. 1415.
- , Gordon M. Mandel, John and Stiehler, Robert D. Aerological sounding balloons. 1287.
- , G. R. s. Paneth, F. A. 2233.
- , H. C. s. Diven, B. C. 2019.
- , Joseph H. s. Harmer, David E. 614.
- , L. H. s. Caro, D. E. 1328.
- , M. s. Sempert, M. 2389.
- , Moira E. s. Hawthorne, W. R. 375.
- , Pierre s. Jaffray, Jean. 2421.
- , P. C. s. Glauber, R. J. 1579.
- , R. s. Brix, P. 2050.
- , R. L. Activation energy of electrical conductivity in fused electrolytes. 1865.
- and Thomas, B. W. Infrared gas analyzer for butane splitter control. 1679.
- , Ronal L. Phase-shift analysis of the scattering of negative pions on hydrogen. 90.
- , W. s. Arnold, W. H. jr. 1998.
- s. Ballam, J. 938.
- Martinek, J. s. Ludford, G. S. S. 1306.
- Martinelli, P. s. Lévê que, P. 1983.
- Martius, Ursula M. Initial stages of oxidation of nickel. 638.
- and Gow, K. V. Ferromagnetic domain patterns on single crystals and bicrystals of nickel. 1421.
- Marton, L. Simpson, J. Arol and Lachenbruch, S. H. Electron-optical shadow method of magnetic-field mapping. 1845.
- and McCraw, T. F. Single scattering of 20-KeV electrons in solids. 1181.
- — — Distribution of electrons scattered by gold. 1607.
- — — Distribution of electrons scattered in solids. 1608.
- s. Leder, Lewis B. 1393, 2402.
- s. Mendlowitz, H. 1181.
- Marty, N. Coincidences entre rayons β et γ détectés à l'aide d'un spectromètre β et d'un spectromètre à scintillations. Application à l'étude du schéma de désintégration de ^{153}Sm . 2380.
- Langevin, H. et Hubert, P. Etude des rayonnements émis par ^{126}I . 241.
- , Mme Nadine s. Bouissières, Georges. 1780.
- Marty, Nadine s. Laberrigue-Frolow, Jeanne. 1360.
- , Pierre s. Brun, Edmond. 27.
- Martynoff, Modeste s. Ramart-Lucas, Mme Pauline. 626.
- Martynow, A. Ss. Streuung der Mesonen an Nukleonen nach der Theorie der Strahlungsdämpfung. 245.
- Maritz, D. E. and Witte, R. S. Transverse field effects in PbS. 1862.
- Marumori, Toshio Yukawa, Jiro and Tanaka, Ryokichi. Foundation of the unified nuclear model. I. 1930.
- s. Hara, Osamu. 1332, 2269.
- Maruo, Hajime. Wave force on a submerged circular cylinder. 1104.
- Marussi, Antonio. Determinazione a priori del modulo di deformazione lineare nella rappresentazione conforme di Gauss. 713.
- Marvel, C. S. and Baumgarten, Henry E. Polyalkylene sulfides wit rubberlike properties. 452.
- and Keplinger, O. Copolymerization of butadiene-styrene by means of an oxygen, dodecyl mercaptan, and iron and cobalt pyrophosphates system. 451.
- Marutake, Masakazu. Effect of electric field on the domain structures in rochelle salt. 2497.
- Marvin, Robert S. Aldrich, R. and Sack, H. S. Dynamic bulk viscosity of polyisobutylene. 2440.
- Marx, G. und Györgyi, G. Energie-Impuls-Tensor des elektromagnetischen Feldes in Dielektrika. 2464.
- s. Szamosi, G. 2269.
- , J. W. and Davis, B. I. Film boiling termination mechanism. 2317.
- s. Cooper, H. G. 610.
- , L. s. Erdmann-Jesnitzer, F. 336.
- , Paul Smith, C. W. Worthington, A. E. and Dole, Malcolm. Specific heat of synthetic high polymers. IV. Polycaprolactam. 2437.
- Maryott, A. A. and Birnbaum, G. Microwave absorption in compressed oxygen. 2052.
- s. Birnbaum, G. 435.
- Marzahl, H. Einfluß des Quarzes auf die Porzellanfestigkeit. 869.
- Maschka, A. s. König, H. 1114.
- Mascolo, Richard W. s. Summerfield, Martin. 1946, 1965.
- Mase, Shoichi s. Ariyama, Kanetaka. 258.

- Masek, G. E. and Panojsky, W. K. H.* Evidence for the electromagnetic production of μ mesons. 2354.
- *Lazarus, A. J. and Panojsky, W. K. H.* Electromagnetic production of μ mesons. 1524.
- Masi, Joseph F. Flieger, Howard W. jr. and Wicklund, John S.* Heat capacity of gaseous perfluoropropane. 2308.
- Masià, A. P. s. Foz, O. R.* 788.
- Masket, A. Victor s. Lindsay, John C.* 20.
- Maslin, E. E. s. Calvert, J. M.* 572, 603, 1592.
- Mason, C. W. Wilder Dwight Bancroft,* 1867-1953. 2254.
- , *David M. Petker, Ira and Vango, Stephen P.* Viscosity and density of the nitric acid-nitrogen dioxide-water system. 1943.
- , *E. A. s. Amdur, I.* 992, 2414.
- , *Edward A. and Rice, William E.* Intermolecular potentials for some simple nonpolar molecules. 1499.
- , *P. and Smith, L. M.* Versatile absolute rotating cylinder plastometer. 199.
- , *W. P.* Effect of dislocations on ultrasonic wave attenuation in metals. 2425.
- Masotti, Arnaldo.* Moti centrali relativi. 1099.
- Masse, Jean-Léon.* Méthodes de perturbation à convergence rapide et à programmation facile sur machines électroniques à cartes perforées. 1921.
- Massey, H. S. W.* Natur der höheren Atmosphärenschichten. 1287.
- *s. Borde, A. H. de* 243.
- *s. Hochberg, S.* 83.
- Masson, C. R. and Melville, H. W.* Modified osmotic balance. 370.
- , *Georges.* Dispositif amplificateur de temps. 275.
- Masuda, Hideyuki.* Lagrange's theorem in hydrodynamics. 2290.
- , *Yoshika and Kanda, Teinosuke.* Chemical shift of the N^{14} magnetic resonance. 2462.
- *s. Itoh, Junkichi.* 2462.
- *s. Sugawara, Tadashi.* 2461.
- Mataga, Noboru Kaibe, Yozo and Kozumi, Masao.* Equilibrium of hydrogen-bond formation in the excited state. 1257.
- Matano, Tsuneo s. Miura, Isao.* 2400.
- Mataré, H. F.* Elektrisches Verhalten von Bikristallzwischen-schichten. 1855.
- *Kedesky, H. MacDonald, A. and Petersen, A.* Study of electrical characteristics of grain boundaries. 2121.
- Matarese, Lawrence M. and Kikuchi, Chihiro.* Anisotropic paramagnetic absorption spectrum of manganous ion in cubic zinc sulfide. 1266.
- Mateosian, E. der.* Neutron capture cross section of Ta^{182} . 421.
- Internal source scintillation spectrometer. 1122.
- *s. Scharff-Goldhaber, Gertrude.* 1552.
- Mathé, Marguerite s. Besson, Jean.* 295.
- Mather, K. B.* Elastic scattering of fast protons and neutrons by deuterons. 84.
- , *R. L. s. Andrew, A.* 1605.
- Matheson, W. E. Carlson, C. R. Mathews, F. S. Haxby, R. O. and Whaley, R. M.* Cloud-chamber investigation of high-energy photonuclear reactions. 1774.
- Mathews, F. S. s. Matheson, W. E.* 1774.
- , *P. M. s. Ramakrishnan, Alladi.* 2388.
- Mathias, L. E. S.* Space charge distribution in the pre-oscillation magnetron. 1058.
- Mathieu, J.-P.* Influence de la valeur finie de la longueur d'onde sur le spectre de vibration des cristaux cubiques. 1940.
- *s. Haas, M. M. C.* 801.
- , *Jean-Paul.* Rotation des ions CN^{-} dans les cristaux de KCN . 1827.
- *s. Couture-Mathieu, Mme Lucienne.* 2072.
- *s. Horeau, Alain.* 550.
- , *S. s. Chevallier, R.* 645, 646.
- Mathur, H. B. and Hyde, E. K.* Isomeric states in the chain $Mo^{90} \rightarrow Nb^{90} \rightarrow Zr^{90}$. 591.
- , *Hirdaya B.* Radiations of 34-day Xe^{127} . 584.
- and *Hyde, Earl K.* Radiations of Mo^{90} and the isomeric states of Nb^{90} . 956.
- *Levine, Charles A. and Kofstad, Per K.* Isomeric pair, Nb^{99m} and Nb^{99} . 73.
- , *J. P. s. Chatterji, A. C.* 2421.
- Matiasch, Christine.* Untersuchung des Spektrums der Konversionselektronen von Actinium X mit der photographischen Methode. 2385.
- Matitsch, T.* Entschleierung von β -empfindlichen Emulsionen. 2339.

- Matland, C. G. s. McCoubrey, A. O.* 142, 2163.
- Matossi, Frank.* Polarization effects on the brightness waves of electroluminescence. 1264.
- Dependence of light amplification in phosphors on light intensity. 1891.
- and *Nudelman, Sol.* Electroluminescence excited by short field pulses. 1891.
- *s. Nudelman, Sol.* 1264.
- Matozaki, Tôru s. Yamaguchi, Jiro.* 2136.
- Matricon, Marcel s. Bonnet, Monique.* 1055.
- Matschinski, Matthias.* Formation des fissures primaires de l'écorce terrestre. 2564.
- Matsen, F, A. s. Miller, J. M.* 1295.
- *s. Streetman, J. R.* 1401.
- Matsubara, Takeo.* Theory of diffuse scattering of X-rays by local lattice distortions. 2416.
- *s. Yoshimori, Akio.* 2419.
- Matsuda, Hiroaki und Ayabe, Yuzo.* Theorie der Randles-Sevčičschen Kathodenstrahl-Polarographie. 663.
- , *Kazuhisa s. Sakata, Hajime.* 2360.
- , *Shoichi.* Superlattice formation in ternary alloys. 2546.
- Matsukawa, E. s. Chapman, K. R.* 422.
- , *Y. s. Inoki, M.* 47.
- Matsumoto, Masaru s. Kondo, Sei-ichi.* 2425.
- , *Tokuji Hamada, Tetuo und Sugarwara, Masao.* Effects of excited states of nucleons upon static nuclear potential in symmetrical pseudoscalar meson theory. I. Derivation of nuclear potential and qualitative conclusions. 2271.
- Matsushita, Sadami.* Semi-diurnal lunar tide (M_2) in region F. 2574.
- Circulatory motions in the ionospheric atmosphere and their relation to the S field of the terrestrial magnetism. I. II. III. 2574, 2575.
- Intense E_s ionization near the magnetic equator. 2575.
- Drifting of E_s ionic clouds. 2575.
- Semi-diurnal lunar variations in the sporadic-E. 2575.
- Matsuzaki, H. Kobayashi, K. and Monose, K.* Anomalously strong natural remanent magnetism of the lava of Mt. Utsukushiga-hara. 2239.
- , *I. s. Takahashi, S.* 298.
- Mattauch, Josef* 60 Jahre. 1489.
- , *J. s. Bieri, R.* 1123.
- *s. Everling, F.* 1346.
- Matthaei, George L.* Network synthesis. 304.
- Matthei, Wesley s. Jacobs, Harold.* 2139, 2480.
- Matthews, David L.* Vortex created by a shock passing over a vertical wall. 916.
- , *J. C. s. Hoare, F. E.* 211.
- , *J. H. s. MacDonald, A. D.* 1440.
- , *P. T. and Salam, A.* Propagators of quantized field. 718.
- *s. Salam, Abdus.* 1584.
- , *W. D. s. Chapman, F. W.* 2245.
- Matthias, B. T.* Empirical relation between superconductivity and the number of valence electrons per atom. 468.
- *s. Holden, A. N.* 1869, 2496.
- *s. Merz, W. J.* 1869.
- Mattis, D. s. Ham, F. S.* 649.
- Mattock, G.* Complex-forming behaviour of tin, germanium, and titanium with some dibasic carboxylic acids. 252.
- Mattor, Robert W. s. Powers, Robert W.* 2311.
- Mattraw, H. C.* Low pressure hydrogen solubility in uranium. 1114.
- *Pachucki, C. F. and Hawkins, N. J.* Equilibrium constant, infrared spectrum and thermodynamic properties of bromine chloride. 1958.
- Matumoto, Tosimatu.* Transmission and reflection of seismic waves through multilayered elastic medium. 2567.
- Matuzawa, Takeo.* Feldtheorie der Erdbeben. 2566.
- Feldtheorie der Erdbeben: Vergleichung vom Großbeben vom 21. Dez. 1946 mit dem Nachbeben vom 18. April 1948. 2566.
- Matyas, Milos.* Mechanismus der Oberflächenoxydation von Kupfer. 1272.
- *s. Tauc, Jan.* 1856.
- Maude, A. D. and Whitmore, R. L.* Wall effect and the viscometry of suspensions. 2287.
- Mauchel, G. A. Epp, E. R. and Johns, H. E.* Self-balancing device for the measurement of ionization current ratios. 1904.
- Mauderli, W. s. Schinz, H. R.* 704.
- Maudlin, L. Z. s. Weissler, G. L.* 1886.
- Mauduit, A.* Méthode graphique de Bergeron pour l'étude de la propaga-

- tion des ondes le long des lignes électriques. 303.
- Mauduit, A.* Rationalisation du système Giorgi. 541.
- *s. Ilivici, A.* 541.
- Maue, A.-W.* Komplementäre Beugungsproblem. 2505.
- Mauer, Floyd A.* Analytical balance for recording rapid changes in weight. 1502.
- Mauunsell, C. D.* Photoionization by absorption in a gas of radiations from a discharge in the same gas. 667.
- Spectra of low-current density glow discharges. 1192.
- Maurer, J. et Forestier, H.* Influence des gaz adsorbés sur les premières manifestations du frittage dans les poudres métalliques. 2548.
- , *L.* Isolierstoffe. 1291.
- Mausser, Heinz.* Anwendung der van't Hoff'schen Reaktionsisobaren auf Molekülverbindungen. 1316.
- und *Kortüm, Gustav.* Anwendung der van't Hoff'schen Reaktionsisobaren auf reversible galvanische Ketten. 1440.
- Maushart, R. und Pollermann, M.* Messung des Temperaturverlaufs während der Expansion wasserdampfgesättigter Luft. 35.
- Mavridès, S.* Solution générale des équations d'Einstein $g_{\mu\nu}$; $q = 0$. 716.
- , *Stamatia.* Choix de la métrique et du champ électromagnétique en théorie unitaire d'Einstein. Lien avec la théorie de Born-Infeld. 716.
- Mavroides, J. G. s. Lax, Benjamin.* 1855.
- Maximon, L. s. Bethe, H. A.* 3.
- Maxson, D. R. Allen, J. S. and Jentschke, W. K.* Electron-neutrino angular correlation in the beta decay of neon-19. 944.
- Maxwell, E. s. Lutes, O. S.* 1648.
- , *J. G. s. Silvini, A. A.* 78.
- May, Harold A.* General-purpose pulse generator. 680.
- , *M. s. Erdmann-Jesnitzner, F.* 334.
- , *Serge et Daudel, Raymond.* Théorie du mécanisme des réactions. I. Application de la méthode des radioindicateurs à l'étude des substitutions nucléophiles. 1742.
- *Giraudel, Bernard et Regnault, Jacques.* Etude cinétique des réactions d'échanges isotopiques entre l'iode et de sodium et les orthoiodophénol, orthoiodotoluène, paraiodotoluène et métaiodotoluène. 2326.
- May, Sherman s. Johansen, H. A.* 1500.
- Mayaud, Pierre-Noël.* Position au 1^{er} janvier 1952 du pôle magnétique sud. 885.
- Mayburg, S.* Vacancies and interstitials in germanium and silicon. 2472.
- , *Sumner.* Precipitation of impurities at dislocations in heat-treated silicon. 650.
- Vacancies and interstitials in heat treated germanium. 1218.
- Lattice defects in silicon. 2120.
- Ring diffusion as the mechanism of self-diffusion in germanium. 2471.
- Mayer, C. H.* Noise power measurements through the use of ferrites. 514.
- *s. Haddock, F. T.* 516.
- , *F.* Correction des pertes en lignes dans les mesures d'impédances. 1016.
- *—, *Herbert.* Physik dünner Schichten. II. Struktur, Elektrische Leitfähigkeit, Magnetische Eigenschaften. 534.
- , *Joseph E.* Two unsolved problems of statistical mechanics. 219.
- , *S. E. s. Waddell, J. M.* 826.
- , *U. s. Burger, H.* 1694.
- *s. Kossel, W.* 1694.
- Mayers, D. F. s. Brown, G. E.* 1387.
- Mayfield, Earle B. Morrison, Harvey L. and Allen, William A.* Projectile penetration into sand. 1732.
- Mayne, K. I. s. Reasbeck, P.* 1483.
- Mayo, B. J.* Rubber-membrane model for axially-symmetric electric fields. 1420.
- , *G. s. Benson, F. A.* 309.
- , *S. s. Brodersen, P. H.* 998.
- Mayoral, Carmen.* Circuito de chispa oscilatorio y resonante para análisis espectrográfico. 1073.
- Mayot, M. Berthier, G. et Pullman, B.* Compléments sur le calcul du diamagnétisme des composés aromatiques. 279.
- Mayr, Giovanna.* Activation analysis with nuclear emulsions. 756.
- , *Jane.* Use of nuclear emulsions to determine small amounts of P^{33} present in samples of P^{32} . 1077.
- Mays, J. M. Shulman, R. G. and McCall, D. W.* Nuclear magnetic resonance in semiconductors: GaSb and InSb. 1034.
- *s. Shulman, R. G.* 1035.
- *s. Slichter, W. P.* 1413.

- Mazari, M. Alba, F. and Serment, V.* Neutron total cross section measurements between 13.0 and 16.2 Mev. 2037.
- *s. Ajzenberg, F.* 1795.
- *s. Bonner, T. W.* 421.
- Maze, R. et Kessler, D.* Étude des interactions des mésons μ de grande énergie avec la matière et problèmes annexes. 1172.
- *Roland s. Kessler, Dan.* 1528, 2042.
- Mazenko, J. J. s. Schwartz, F. A.* 1071, 1263.
- Mazo, R. M. and Kirkwood, J. G.* Atomic distribution in liquid helium-3. 2074.
- — Structure of liquid helium. 2427.
- Mazur, P. and Groot, S. R. de.* Onsager's relations in a magnetic field. 190.
- and *Jansen, L.* Theory of molecular polarization in gases. II. Effect of molecular interactions on the Clausius-Mosotti function for systems of spherical nonpolar molecules. 99.
- *s. Groot, S. R. de.* 2099.
- *s. Fieschi, R.* 271, 272.
- *s. Jansen, L.* 99.
- *s. Prigogine, I.* 2140.
- Mazza, L. e Iandelli, A.* Struttura cristallina e spettri di riflessione degli ossifluoruri di praseodimio, neodimio e samario. 2417.
- Mead, S. W. Petroff, M. D. and Doggett, W. O.* Half-life of Sn^{110} . 1548.
- *s. Petroff, M. D.* 1547.
- *Warren J. and Collins, Vincent P.* Principles of dilatancy applied to techniques of radiotherapy. 345.
- Meadows, Edith B. s. Johnson, Charles Y.* 1485.
- *J. W. (p, a) and (p, ab) reactions at 100 Mev.* 950.
- Meakins, R. J. and Mulley, Joan W.* Thermal and dielectric properties of crystalline long-chain acetates. 805.
- *s. Dryden, J. S.* 2108.
- Meal, Janet Hawkins s. Mann, D. E.* 431.
- Mech, J. F. s. Andre, C. G.* 2366.
- *s. Ghiorso, A.* 1322.
- *s. Magnusson, L. B.* 579.
- Mecke, R. und Rossmly, G.* Infrarotspektroskopische Untersuchungen an aromatischen Hydroxyl- und Deuteroxylverbindungen. I. Zuordnung der ebenen OH-Deformationsschwingung. 997.
- *und Rossmog, K.* Dielektrische Eichsubstanzen. 2167.
- Mecke, R. und Spiessack, H.* Infrarot und Ramanpektren hochsymmetrischer Moleküle. Infrarotspektrum und Schwingungsanalyse des Urotropins (1,3,5,6-Tetraazaadamantan). 2058.
- Medalia, A. I. s. Kolthoff, I. M.* 451.
- Médard, Louis.* Chaleur de combustion de la diphenylamine et l'énergie de la liaison N-N. 26.
- Medhurst, R. G. and Small, G. F.* Analysis of echo distortion in the f.m. transmission of frequency-division multiplex. 1872.
- and *Stewart, J. L.* Power spectrum of a carrier frequency modulated by Gaussian noise. 2510.
- Medicus, Gustav.* Pronounced deviations from the maxwellian velocity distribution of the electrons in hollow hot cathode diodes with Ne filling. 1044.
- Medina, A. s. Flegenheimer, J.* 567.
- Medvedev, S. S.* Formation de radicaux libres dans les processus de photopolymérisation et de polymérisation radiochimique. 614.
- Meehan, C. J.* Effect of low-temperature electron irradiation on the electrical resistivity of copper. 2042.
- and *Eggleston, R. R.* Formation energy of vacancies in copper. 467.
- Meehan, E. J. s. Kolthoff, I. M.* 451.
- Meek, J. H.* Location and shape of the auroral zone. 886.
- *Motions of auroral light forms.* 708.
- and *Hector, F. S.* Magnetic variometer. 1484.
- Meeks, Wilkison W. s. Beth, Richardson A.* 2452.
- Meem, J. L.* Energy released per fission in the bulk shielding reactor. 559.
- Meerman, P. G.* Viskositätsmessung an sedimentierenden Suspensionen. 1206.
- Meers, J. T. s. Palmatier, E. D.* 982.
- Meggers, William F. and Moore, Charlotte E.* Report of Sub-Committee b (collecting of data concerning atomic spectra). 1291.
- and *Murphy, Robert J.* Arc spectra of gallium, indium, and thallium. 428.
- Mehl, W. s. Gerischer, H.* 1042.
- Mehliß, Wilhelm.* 100 Jahre Entwicklung im Zeiss-Mikroskop-Stativbau. 2521.
- Mehrbach, E. s. Sayer, W. H. jr.* 486.
- Meiboom, S. s. Ables, B.* 1647.
- Meier, Günther s. Hofmann, Wilhelm.* 20.

- Meier, Hans.* Einfluß von Gasen auf den Sperrschichtphotoeffekt organischer Farbstoffe. 1038.
- Meijdenberg, C. J. N. van den, Taconis, K. W., Beenakker, J. J. M. and Wansink, D. H. N.* Indirect measurement of the fountain effect. 262.
- Meijer, G., Mennega, R. and Sizoo, G. J.* Analysis of stereoscopic cloud-chamber photographs. 756.
- *s. Hok, Ong Ping.* 2383.
- Meijer, H. J. G. and Polder, D.* Polar scattering of conduction electrons in regular crystals. 2112.
- , *Paul H. E.* Calculation of wave function in a symmetrical crystalline field. 367.
- Sextet ground-level in diluted iron-alum. II. 2108.
- and *Gerritsen, H. J.* Magnitude of the splitting of the lowest level in chromium alum. 1643.
- Meiler, J.* Zusammensetzung der verschiedenen Unschärfefaktoren zur Gesamtunschärfe im Röntgenbild. 1277.
- Meinel, A. B. Negaard, B. J. and Chamberlain, J. W.* Statistical analysis of low-latitude aurorae. 523.
- Meinesz, F. A. Vening.* Feature of the earth's topography, origin of continents and oceans. I. II. 884.
- Meinke, H. und Rihaczek, A.* Kristalldioden in Spannungsleitern, insbesondere zur Linearisierung und Verstärkung von statischen und dynamischen Kennlinien. 1436.
- , *W. W. Emmons, A. H. and Nehemias, J. V.* Use of palladium-109 as a multicurie beta-ray source. 2024.
- , *W. Wayne s. Cassatt, Wayne A. jr.* 1557, 2373.
- Meinzel, Jean.* Relations entre transitions de phase, défauts de réseau et phénomènes Debye dans les solides. 2070.
- Meissner, A.* Modellmäßige Darstellung des Elektrons. 365.
- , *Alexander geb. 14. 9. 1883.* 2254.
- Meißner, Alexander* ein Pionier der Funktechnik. 70 Jahre. 2254.
- zum 70. Geburtstag. 2255.
- Meissner, Hans.* Theory of the paramagnetic effect in superconductors. 1427.
- Paramagnetic effect in superconductors. I. Theoretical aspects. 1427.
- *s. Bedard, F.* 1648.
- Meissner, J. s. Dehlinger, U.* 913.
- , *K. W. s. Deverall, G. V.* 95.
- , *W. s. Sachse, Herbert.* 1089.
- Meister, A. G., Dowling, J. M., Takata, A. N. and Bielecki, A. J.* Potential constants for the CHDClBr , CH_2F_2 , CD_2F_2 and CHDF_2 molecules. 1816.
- , *Arnold G. s. Dowling, Jerome M.* 1109.
- , *F. J.* Hörsicherheit bei Lärmbelastung kranker und normaler Ohren im Verkehr. 2551.
- , *G. s. Weizel, W.* 1062.
- , *H.* Schmelzsicherungen bei Stoßströmen. 301.
- Aktivierungsstörung von Indiumfolien im Neutronenfeld. 571.
- , *R. s. Litovitz, T. A.* 2302.
- Meitner, Lise.* 182.
- Meizner, J.* Thermodynamische Theorie der Relaxationserscheinungen und ihr Zusammenhang mit der Nachwirkungstheorie. 217.
- Melan, E.* Spannungen infolge nicht stationärer Temperaturfelder. 1305.
- Meksyn, D.* Integration of the boundary-layer equations for a plane in compressible flow with heat transfer. 18.
- Melamed, N. T. s. Bowers, R.* 692.
- , *Nathan T. and Bowers, Raymond.* Origin of luminescence in copper activated ZnS phosphors. 1264.
- Melan, Ernst.* Wärmespannungen bei der Abkühlung einer Kugel. 749.
- Melchor, J. L. s. Ayres, W. P.* 1685.
- Melkanoff, Michel A., Nodvik, John and Saxon, David S.* Analysis of elastic scattering of 31.5-Mev protons. 1797.
- *Moszkowski, S. A., Nodvik, John and Saxon, David S.* Energy dependence of the optical model parameters. 2389.
- Melkonian, G. A. s. Kastening, B.* 1114.
- Mellor, D. P. s. Fielding, P. E.* 1225.
- Melnick, Joseph L. s. Reissig, Magdalena.* 2222.
- Melton, C. E., Harst, G. S. and Bortner, T. E.* Ionization produced by 5-Mev alpha particles in argon mixtures. 415.
- Melville, H. M. and Valentine, L.* Rate coefficients in the polymerization of styrene. 802.
- , *H. W.* Kinetics of polymerisation reactions in viscous systems. 1833.
- M. G. Evans.* In memoriam. 2254.
- *s. Masson, C. R.* 370.
- Melvin, M. A.* Simplification in finding symmetry-adapted eigenstates. 898.

- Melvin, M. A.* Fractional occurrence numbers of eigenstates. 1496.
- *Freundlich* red-shift formula. 1711.
- Radiation flux field outside of stars and spherical reactors. 1752.
- Radiation flux field outside of stars and spherical reactors. 1752.
- and *Burgeson, J. W.* Resiliency of pure metals. 1503.
- , *M. Avramy.* Generalization of the new classical electrodynamics. 364.
- Derivation of the gauge condition in the new electrodynamics. 364.
- Classical electrodynamics. 2110.
- Memelink, O. W.* Distribution of impurity in a semi-infinite solidified melt. 798.
- Memmert, G.* Streuung von schnellen Neutronen an zusammengesetzten Atomkernen. 2038.
- Mencher, Alan G.* Use of a delta-function source in a problem on elastic waves. 2566.
- Mende, Herbert G.* Elektronisch kompensierende Mehrfachschreiber. 1098.
- Mendel, J. T.* Magnetic focusing of electron beams. 851.
- Mendelsohn, L. I. s. Paine, T. O.* 2546.
- Mendelsohn, K.* Adiabatic magnetization of superconductors. 2115.
- and *Renton, C. A.* Heat conductivity of superconductors below 1° K. 820.
- and *White, G. K.* Helium II transfer on metal surfaces. 2075.
- s. *Allen, W. D.* 2113.
- s. *Bowers, R.* 2075.
- s. *Brewer, D. F.* 632.
- s. *Chandrasekhar, B. S.* 631.
- Mendes, Marcel.* Transformations canoniques générales. 371.
- Mendlowitz, H. and Case, K. M.* Double scattering of electrons with magnetic interaction. 606.
- Double scattering of electrons with magnetic interaction. II. Depolarization. 2038.
- and *Murton, L.* Scattering of 20-Kev electrons in thin films. 1181.
- s. *Leder, Lewis B.* 2402.
- Menes, H. C. s. Abramson, B. N.* 1507.
- , *M.* Investigation of buildup processes in a argon discharge. 1044.
- Menius, A. C. jr. s. Hostetter, Donald E.* 560.
- Mennega, R. s. Meijer, G.* 756.
- Menold, Richard.* Sorption der Halogene an aufgedampften Nickelschichten. 1012.
- Menon s. Friedlander, M. W.* 2350.
- Menon, M. G. K. and O'Ceallaigh, C.* Range-scattering method of mass estimation of ionizing particles. 2341.
- Menon, M. G. K. s. Davies, J. H.* 763.
- Menter, J. W. and Tabor, D.* Orientation of fatty acid and soap films on metal surfaces. 807.
- s. *Hirsch, P. B.* 1418.
- Menzel, D. H. s. Layzer, D.* 817.
- , *E. und Stössel, W.* Diskontinuierliche Anlaufschichten auf Kupfer. 268.
- — und *Otter, M.* Einkristalle mit reiner Oberfläche. 445.
- s. *Kossel, W.* 825.
- s. *Menzel-Kopp, Chr.* 440.
- , *Erich.* Selbstdiffusion auf der Kupferoberfläche. 2442.
- , *Heinz.* Theorie der seismischen Bodenunruhe. 2567.
- Menzel-Kopp, Chr.* Kreuzung von zwei Extinktionslinien bei Elektroneninterferenzen im konvergenten Bündel. 1003.
- und *Menzel, E.* Elektronenbeugung an Kupfereinkristall-Oberflächen bei hoher Temperatur. 440.
- , *Ernst und Voelkel, Heinz.* Dimensionierung von Phasenkorrekturgliedern für Fernsehübertragungsanlagen. 2515.
- Mercer, F. V. s. Hodge, A. J.* 2223.
- Mercier, André.* Fifty years of the theory of relativity. 1090.
- , *J.* Pression de radiation dans les fluides. 2298.
- , *Mlle J. s. Paquot, C.* 2485.
- , *Robert s. Manus, Claude.* 815.
- Meredith, C. C. and Wright, George F.* Apparatus for the determination of dipole moments. 2166.
- , *G. P.* Problems in communicating information. 535.
- , *L. H., Gottlieb, M. B. and Allen, J. A. van.* Direct detection of soft radiation above 50 kilometers in the aural zone. 522.
- s. *Ellis, J. A.* 249.
- Mergault, Pierre.* Cryoscopie dans la cryolithe fondue. 1112.
- Mérigoux, R.* Mesure du pouvoir réflecteur des peintures. 687.
- s. *Bertrand, R.* 337.
- Mering, Jacques et Longuet-Escard, Mme Jacqueline.* Détermination directe des paramètres d'organisation cristalline. 103.

- Merker, L. s. Levin, S. B.* 1627.
Merlin, M. s. Ceccarelli, M. 763.
 — *s. Davies, J. H.* 763.
Merrill, Edward W. Coaxial cylinder viscometer for the study of fluids under high velocity gradients. 202.
Merrison, A. W. s. Collinge, B. 1322.
 — *s. Duckworth, J. C.* 1982.
Merritt, F. R. s. Bozorth, R. M. 2456.
 — *s. Fletcher, R. C.* 130, 1029.
 — *s. Yager, W. A.* 2461.
 —, *Jack and Hamlin, Daniel A.* Production of π^+ mesons at 0° by 335-Mev protons on deuterium and complex nuclei. 1527.
 —, *Lynne L. jr. and Lanterman, Elma.* Crystal structure of dimethylglyoxime 2067.
 —, *W. F. s. Bartholomew, Rosalie M.* 239.
Mertens, J. J. Peripheral and foveal dark-adaptation curves as a function of luminance and wavelength. 512.
 —, *Robert.* Diffraction of light by progressive and standing supersonic waves. 2306.
Merton, Thomas R. Use of diffraction gratings ruled on cylinders. 1064.
Mertz, Lawrence. Grating polarizers in the wavelength range 100—500 microns. 2195.
Meryman, H. T. s. Hass, Georg. 1889.
Merz, E. s. Eberhardt, P. 569.
 —, *Erich s. Herr, Wilfrid.* 556.
 —, *W. J. and Anderson, J. R.* Ferroelectric storage devices. 2263.
 —, *Remeika, J. P., Holden, A. N. and Matthias, B. T.* Electrical properties of guanidine aluminum sulfate hexahydrate (G.A.S.H.) and some isomorphs. 1869.
 — *s. Holden, A. N.* 1869, 2496.
 —, *Walter J. s. Hooton, John A.* 1240.
Merzbacher, E. s. Patterson, J. R. 1561.
 — *s. Toller, A. L.* 1562.
Mesarović, M. Circle diagrams and moment diagrams of a monophasic selsyn. 1663.
 —, *Mihajlo.* Metadin. I.—V. (Die Metadyne.) 149.
Meščerjakov, M. G., Bogačev, N. P. and Neganov, B. S. Proton-proton interaction at high energies. 2035.
Meservey, Edward. Neutron-capture cross sections by capture gamma counting. 408.
Meshkov, S. and Ufford, C. W. Matrix elements of the nuclear p^3 configuration. 1156
 — — Application of the Bacher and Goudsmit method to nuclear spectra. 1573.
Mesnard, Guy. Cathodes à la thorie. 1051.
Messel, H. s. Chartres, B. A. 615, 1802.
 — *s. Gardner, J. W.* 247.
Messelt, S. and Storruste, A. Elastic scattering of gamma rays. 2397.
Messerschmidt, W. Beugung am Gitter und am Spalt. 159.
Messiah, Albert, s. Bloch, Claude. 1534.
 —, *A. M. L. s. Horowitz, J.* 238.
Messner, D. s. Frohnmeyer, G. 1037.
 —, *R.* Charakteristische Eigenschaften der Reflexionsfunktion einer optischen Mehrfach-Interferenzschicht. 1464.
 — Theoretische Grundlagen optischer Interferenzpolarisation. 2526.
Met, V. Elektrolyttrog zur Lösung von Netzwerkproblemen. 1669.
Metcalf, W. K. s. Keohane, K. W. 1461.
 —, *W. S.* Quenching of the fluorescence of anthracene gas. 1260.
 —, *K. A. and Wright, R. J.* Fine grain development in xerography. 2205.
Meter, R. A. van s. Dinneen, G. U. 726.
Metropolis, N. s. Fermi, E. 90.
 — *s. Hoffmann, F. de.* 90.
 — *s. Hoffman, Joseph G.* 171.
 —, *Nicholas s. Kilpatrick, John E.* 2315.
Metschl, E. C. Theorie der Gleichrichter mit Ohmscher Widerstandsbelastung. 1874.
Metson, G. H. Valve life. 850.
 — Study of the long-term emission behaviour of an oxide-cathode valve. 1662.
 —, *Rickard, E. F. and Hewlett, F. M.* Breakdown of heater-cathode insulation in oxide-cathode receiving valves. 1662.
Mette, Herbert. Benennung von Transistorgrößen. 652.
 Schleifdrahtwalze für die Townsend-schaltung als einfaches Hilfsmittel zur Präzisionsmessung von sehr großen Widerständen. 2100.
Mettler, E. Nichtlineare Schwingungen und kinetische Instabilität bei Saiten und Stäben. 11701.
Metz, A. Considérations sur la transformation de Lorentz et le caractère de groupe. 897.

- Metz, André.* Transformations de Lorentz ne forment pas, en général, un groupe. Signification physique de cette propriété. 1923.
- Metzger, F. R. s. Swann, C. P.* 1568.
- , *Franz R.* Spin and lifetime of the 439-kev excited state of Hg^{202} . 411.
- Angular distribution of the resonance fluorescence radiation from the 411-kev excited state of Hg^{198} . 609.
- Angular distribution of the resonance fluorescence radiation from the 411-kev level in Hg^{198} . 1363.
- Nuclear resonance fluorescence in Ge^{74} and Pr^{141} . 1554.
- Nuclear resonance fluorescence in Ge^{72} and Ge^{74} . 2375.
- , *M. s. Levy, M.* 334.
- Meunier, L. s. Franck, U. F.* 2482.
- Meurer, E. s. Hans, W.* 2155.
- Meurers, J.* Schichtverzerrungen auf photographischen Platten. 348.
- Meuth, H.-O.* Einfluß des Spannungsgefalles auf die Dauerschwingfestigkeit. 1267.
- Stützwirkung bei Schwingungsbeanspruchung. 2297.
- Mével, J.* Alimentation stabilisée haute tension. Application aux klystrons millimétriques. 644.
- Meyer, A. J. P. et Taglang, P.* Ferromagnétisme et antiferromagnétisme de Mn Au_2 . 2215.
- , *Bernhard.* Anstieg der Höhenstrahlung am 23. 2. 1956. 2043.
- , *Christoph.* Gasentladungslampen und ihre physikalischen Probleme. II. 1466.
- , *Erwin.* Elektroakustische Übertragungsanlagen. 1733.
- , *Schmitt, Hans Jürgen und Severin, Hans.* Dielektrizitätskonstante und Permeabilität künstlicher Dielektrika bei 3 cm Wellenlänge. 1868.
- , *E. W. s. Hawksley, P. G. W.* 2094.
- , *G. s. Marschall, H.* 775.
- , *H.* Isolatoren. 1490.
- *s. Cooke, A. H.* 817.
- , *H. J. G.* Theory of transitions of F center electrons. 259.
- , *s. Kröger, F. A.* 329.
- , *K. P. s. Baldinger, E.* 1537.
- , *L. s. Baskin, Y.* 1822.
- , *Lothar.* Thickness of the helium film as a function of height. 635.
- , *s. Inghram, Mark, G.* 635.
- Meyer, Lothar s. Long, Earl.* 635, 1197.
- , *L. H. s. Gutowsky, H. S.* 277.
- , *Otto.* Erdmagnetische Registrierungen von Mögel-Dellinger-Effekten. 2509.
- Messung der Vertikalintensität des erdmagnetischen Feldes auf See mit dem Magnetron. 2568.
- Erdmagnetische Bay-Störungen. 2568.
- , *Peter und Simpson, J. A.* Changes in the low-energy primary spectrum and the low-energy particle cutoff of cosmic radiations. 1388.
- — Changes in the low-energy particle cutoff and primary spectrum of cosmic radiation. 2045.
- , *R. A. and Boquet, F. L.* Conductivity of teflon and polyethylene during gamma irradiation. 1436.
- , *Robert A.* Influence of deuteron bombardment and strain hardening on mild steel. 509.
- , *R. C. s. Hudgens, J. E.* 1982.
- , *R. E. s. Mahony, J. J.* 1310.
- , *V. s. Bumiller, F.* 39.
- , *W. s. Tödt, F.* 139.
- , *W. E.* Öffnungsfehler 5. Ordnung bei sphärisch korrigierten Elektronenmikroskopen. 2205.
- Meyer-Arendt, J. und Bayer, M.* Absorptionsspektrum von Melaninpigment. 1694.
- Meyer-Berkhout, Ulrich s. Krüger, Hubert.* 2109, 1397.
- Meyer-Eppler, Werner.* Physikalische Analogien linguistischer Strukturen. 540.
- *s. Krebs, Heinz.* 2063.
- Meyer-Heisig, Erich.* Sammlung deutscher Gläser im Germanischen National-Museum zu Nürnberg. 2256.
- Meyerhof, W. E. s. Brun, E.* 1790.
- , *s. Kraushaar, J. J.* 1570.
- *s. Roderick, H.* 72.
- Meyerrott, Roland E. and Margenau, Henry.* Line broadening by electrons: validity of simple theories. 1400.
- Line broadening by electrons: validity of simple theories. 1810.
- Meyer-Schützmeister, L. and Telegdi, V. L.* Inelastic scattering of photons from Au^{197} . 2036.
- und *Vincent, D. H.* Absoluteichungen energiereicher β -Strahler mit dem 4π -Zählrohr. 2024.
- , *s. Houtermans, F. G.* 2023.

- Mez, Arthur und Maier, Wilhelm.* Ultraschallabsorption und Assoziation in Lösung von Phenol in Tetrachlorkohlenstoff, Cyclohexan und Chlorbenzol. 1107.
- Mezger, P. s. Birkenschenkel, H.* 484.
- Miane, M. s. Gavreau, V.* 1954.
- Michaelson, J. D. s. Florin, R. E.* 1632.
- Michalik, E. R. s. Schwertz, F. A.* 1263.
- Michalowicz, A. s. Bouchez, R.* 2382.
- Michel, A.* Macromolécules en chimie minérale. 2430.
- *s. Schüler, H.* 102. 2061.
- , *J. G. L.* Errors of friction wheel integrators. 1091.
- , *L. and Wightman, A. S.* Covariant formalism describing the polarization of spin one-half particles. 6.
- , *Louis.* Reactions between nucleons and mesons, and search for negative protons. 2004.
- *Théorème sur les invariants formés de quatre fonctions d'onde de Dirac. Application: section efficace de diffusion nucléon-nucléon.* 2266.
- , *M. C. s. Passell, T. O.* 770.
- , *Pierre.* Diffusion des métaux en couches mines obtenues par vaporisation. 1634.
- *Préparation et étude par diffraction électronique d'alliages métalliques en couches minces.* 2448.
- , *W. S. and Whyte, G. N.* International comparisons of the Canadian primary radium standard. 2557.
- Michel-Lévy, Albert (1877—1955).* 2254.
- Michelini, A. s. Alexander, G.* 561.
- Michels, A. and Botzen, A.* Thermal conductivity of nitrogen at pressures up to 2500 atmospheres. 922.
- and *Strijland, J.* Specific heat at constant volume of compressed carbon dioxide. 1959.
- , *Botzen, A. and Schuurman, W.* Viscosity of argon at pressures up to 2000 atmospheres. 2288.
- , *Jacobs, S. J. and Slawsky, Z. I.* Rapid expansion of compressed gases behind a piston, effect of molecular interaction. III. 214.
- , *Wassenaar, T. and Wolkers, G. J.* Thermodynamical properties of air for temperatures between +75° and —170° C and pressures up to 1200 atmospheres. 2308.
- Michielsen, H. F.* Himmelsmechanische Probleme in der Weltraumfahrt. 738.
- Mickelson, R. S. s. Holland, F. H.* 861.
- Micus, Gerhard und Troitenier, Uwe.* Messung und Theorie der Kristallisationsgeschwindigkeit unterkühlter Schmelzen. 107.
- Middelboe, Victor s. Rasmussen, Ebbe.* 1398.
- Middleton, David.* Statistical observer. 927.
- Information loss attending the decision operation in detection. 927.
- , *R. s. Burrows, H. B.* 2036.
- *s. Green, T. S.* 951.
- *s. Hinds, S.* 2036.
- , *W. E. K. and Mungall, A. G.* Instrument for the measurement of distinctness-of-image gloss. 2198.
- , *W. E. Knowles.* Registering lowlevel photometer. 857.
- Middtal, J. s. Holøien, E.* 250.
- Midzuno, Yukio s. Kihara, Taro.* 2315.
- Miederer, W. s. Lange, E.* 1316, 1317, 1511.
- Miele, Angelo.* Optimum climbing technique for a rocket-powered aircraft. 2296.
- Mielenz, K.-D.* Eignung von Polarisationsfiltern für photometrische Messungen. 686.
- *Theorie des Hüfner-Rhombus.* 1255.
- , *Klaus-Dieter.* Metallspektroskopie als bewährtes Mittel der Betriebskontrolle. 2542.
- Mierdel, Georg.* Potentialverhältnisse in einem abklingenden Plasma. 2493.
- Miescher, E.* Fine structure of NO⁺ and NO emission spectra in the Schumann region. 1190.
- *Rotationsanalyse der NO⁺-Banden.* 1818.
- *s. Baer, P.* 437.
- Migdal, A. B. s. Goldman, I. I.* 974.
- Mignone, G. s. Corato, M. di.* 2367.
- Mihama, Kazuhiro s. Honjo, Goro.* 794.
- Mihelich, J. W., McKeown, M. and Goldhaber, M.* E3 Isomer in Ir¹⁹¹. 68.
- *s. Hollander, J. M.* 1159.
- *s. Sunyar, A. W.* 1360.
- , *John W. and Goldhaber, M.* Evidence for a mixed M3 + E4 isomeric transition. 1155.
- Mikhail, F. I. s. McCrea, W. H.* 1924.
- Mikkelsen, Louis s. Ferguson, E. E.* 432.
- Mikumo, Takasi s. Hattori, Manabu.* 772.

- Mikura, Ziro.* Specific heat of liquid He^3 . 1829.
- Specific heat of a solution of He^3 in liquid He^4 . 1830.
- Milani, S., Cooper, John N. and Harris, J. C.* Gamma-ray resonances in the reaction $\text{Si}^{29}-(p, \gamma)\text{P}^{30}$. 1371.
- Milatz, J. M. W. s. Alkemade, C. T. J.* 2525.
- Milazzo, G.* Mögliche Fehlerquelle bei Druckmessung mit Kapazitäts-Mikromanometer. 1302.
- Mikeikowsky, Curt.* Reaction energy of $\text{O}^{18}(p, \alpha)\text{N}^{15}$ and the atomic mass of oxygen 18. 1773.
- Reaction energy of $\text{Ne}^{20}(d, \alpha)\text{F}^{18}$ by magnetic analysis. 1774.
- and *Ahnlund, Katarina.* Proton groups from the reaction. 412.
- Miles, John W.* Solutions to the wave equation in hyperbolic space. 537.
- Milikutat, Ernst.* Explizite Darstellung des Kronecker-Tensors in einer Mannigfaltigkeit beliebig hoher Ordnung. 713.
- Millar, W. s. Lawson, J. D.* 1250.
- Millard, B., Caswell, E. G., Leger, E. E. and Mills, D. R.* Adsorption and heats of adsorption of water on spheron 6 and graphon. 1959.
- , *D. J.* Cracking of layers of brittle material by differential strains. 1306.
- , *Neuman, P. C. and Phillips, J. W.* Apparent strength of extensively cracked materials. 373.
- Millburn, G. P. s. Birnbaum, W.* 1769.
- , *George P., Moyer, Burton J., Tai Yuinkwei and Kaplan, Selig N.* Neutron yields from 32-Mev protons on thick targets. 1542.
- *s. Schechter, Larry.* 557.
- Millécamps, M. s. Abelès, F.* 686.
- Miller, D. s. Barnes, S. W.* 1602.
- , *D. G.* Proportional gamma spectrometer. 1253.
- and *Leboeuf, M. B.* Effect of high beta backgrounds on precision alpha counting. 2339.
- , *D. W., Rasmussen, V. K. and Sampson, M. B.* Energy levels of C^{12} by inelastic alpha scattering. 1783.
- — and *Gupta, U. C.* Reactions $\text{Be}^9(d, d')$ and $\text{Be}^9(\alpha, \alpha')$. 1366.
- , *Carmichael, B. M., Gupta, U. C., Rasmussen, V. K. and Sampson, M. B.* Scattering of 22-Mev alpha particles by N^{14} . 2375.
- Miller, D. W. s. Rasmussen, V. K.* 1566, 1783.
- , *E. J. s. Milne, F. A.* 2185.
- , *G. F. and Musgrave, M. J. P.* Propagation of elastic waves in aeolotropic media. III. Media of cubic symmetry. 2282.
- and *Pursey, H.* Partition of energy between elastic waves in a semi-infinite solid. 730.
- , *Glenn H. s. Lowry, Ralph A.* 428.
- , *H. A. s. Hughes, G. E.* 2503.
- , *J. E., Kendrick, N. S. jr. and Crawford, G. W.* Crystal structure changes of sulfur. 629.
- *s. Kendrick, N. S.* 629.
- , *J. H.* Simplified standard cell comparator. 1637.
- , *J. M. and Matsen, F. A.* Molecular wavefunctions in the c-notation. 1295.
- *s. Alperovitch, Edward A.* 955, 1546.
- , *Julius Sumner.* Teaching device. 1919.
- Departure in general physics laboratory procedure. 1919.
- What constitutes a laboratory examination. 1919.
- , *Leonhard.* Ammoniakadsorption an Silizium. 638.
- , *L. G. s. Joki, E. G.* 1594.
- *s. Smith, G. L.* 36.
- , *M. M. and Ahrens, T.* Possibility of interpreting beta decay spectra in terms of nuclear forces. 2032.
- , *N. s. Donaldson, D. M.* 612.
- *s. Zajac, Barbara.* 2009.
- , *O. B. s. Barnes, R. G.* 1643.
- , *Park H. jr. s. Long, Donald.* 1224.
- , *P. H. jr. s. Rau, Richard.* 1026.
- , *Paul C. s. Lewis, Margaret N.* 96.
- , *R. C. and Kusch, P.* Velocity distributions in potassium and thallium atomic beams. 1391.
- , *S. E. s. Fox, A. G.* 2178.
- *s. Harman, T. C.* 1653.
- , *William and Kennedy, R. J.* X-ray attenuation in lead, aluminium and concrete in the range 275 to 525 kilovolts. 1682.
- , *Motz, J. W. and Cialella, Carmen.* Thick target bremsstrahlung spectra for 1.00-, 1.25-, and 1.40-Mev electrons. 422.
- *s. Motz, J. W.* 1171.
- , *William B. jr.* Nomogram for estimating decay of I^{131} and P^{32} . 2024.

- Miller, W. C. s. *Connors, D. R.* 971.
 — s. *Dempsey, D. F.* 1123.
 — s. *Ruane, T. F.* 1171.
 — s. *Spiegel, V. jr.* 1172.
 — s. *Waldman, B.* 1172.
 Milley, D. C. s. *Mann, K. C.* 556.
 Millian, Kurt und Rieder, Werner. Kontaktwiderstand und Kontaktoberfläche. 1242.
 Milligan, Morris F. and Watts, Richard J. Simple d-c fluorophotometer for detecting uranium. 1266.
 Millington, G. Effect of the earth's magnetic field on short-wave communication by the ionosphere. 1875.
 Millman, J. and Puckett, T. H. Accurate linear bidirectional diode gates. 2512.
 Mills, B. D. and Wright, W. W. Rating of thermionic valves for use under abnormal ambient conditions. 1454.
 —, B. Y. Observation and interpretation of radio emission from some bright galaxies. 2236.
 —, C. B. High-intensity ion sources. 933.
 —, D. R. s. *Millard, B.* 1959.
 —, F. E. and Koester, L. J. jr. Low-energy photoproduction of π^0 mesons from hydrogen: total cross section. 1340.
 — and Koester, L. J. jr. Neutral photo-mesons from hydrogen. 1525.
 — s. *Goldwasser, E. L.* 47, 943, 1172.
 Mills, Ian M. and Crawford, Bryce jr. Transmission of germanium in the far infrared. 1855.
 —, I. M., Scherer, J. R., Crawford, Bryce jr. and Youngquist, M. Calibration and use of a cesium-iodide prism in the infrared. 1883.
 —, R. L. Integral equations of the meson-nucleon system. 7.
 — s. *Day, R. B.* 979.
 —, W. A. and Hurst, G. S. Fast-neutron dosimetry in a small tissue-equivalent phantom. 875.
 —, W. R. jr., Hilton, H. H. and Barnes, C. A. Internal conversion coefficients of low excited states of F^{19} . 1574.
 — s. *Kavanagh, R. W.* 582.
 — s. *Sherr, R.* 1154.
 —, W. R. jr. s. *Mackin, R. J.* 956.
 Milman, B. s. *Beghian, L. E.* 237, 243, 1781.
 Milne, F. A. and Miller, E. J. Direct-coupled transitron. 2185.
 Milner, C. J. and Watts, B. N. Lead semiconductor photoconductive cells. 2134.
 —, Paul C. s. *Green, Louis C.* 619.
 — s. *Lewis, Margaret N.* 1886.
 Milone, A. s. *Davies, J. H.* 763.
 Milsom, A. S. s. *Newton, H. W.* 519.
 Milsted, J. s. *Glover, K. M.* 239.
 Milton, G. M. s. *Milton, J. C. D.* 1153.
 —, J. C. D., Fraser, J. S. and Milton, G. M. Long-lived isomer of Ho^{166} . 1153.
 — s. *Fraser, J. S.* 1154.
 Mims, W., Halban, H. and Wilson, Richard. Internal pair creation in magnesium-24. 1990.
 —, W. B. s. *Mackin, R. J. jr.* 956.
 Minaire, Ch. Problems in metrology. 2279.
 Minakawa, O. and Nishimura, J. Unusual star by Nakagawa et al. 954.
 —, Osamu s. *Kita, Isao.* 989, 1177, 2400.
 — s. *Kitamaru, Yoshio.* 2401.
 Minami, Shigeo. Meson-nucleon interaction. 2360.
 — s. *Hayakawa, Satio.* 768.
 — s. *Ito, Daisuke.* 1758.
 Minardi, E. Condizioni al contorno nella teoria quantistica della dispersione. 361.
 Minardi, E. Quantizzazione della massa e formalismo non locale. 1716.
 Minden, Henry T. Molecular distortion caused by hindered rotation. 1817.
 Mingins, Charles R. s. *Farrall, George A.* 166.
 Minkowski, R. Progress report on astronomical observations of radio sources. 517.
 Minnis, C. M. Electron production and recombination in the E-layer. 1913.
 — Index of solar activity based on ionospheric measurements. 2575.
 — s. *Humby, A. M.* 847.
 Minoletti, Bruno. Accademia Ligure di Scienze e Lettere nel 1949. 1490.
 Minorsky, Nicolas. Extinction asynchrony. 2280.
 Minushkin, Bertram s. *Hyman, Seymour C.* 1125.
 Miramond, L. s. *Fourage, R.* 1974.
 Miranda, J. Rodrigues de. Radio set as an instrument for the reproduction of music. 744.
 Mirone, Paolo. Spettro ultrarosso dell'aldeide furilica. 1189.
 — s. *Chiorboli, Paolo.* 1189.

- Misner, C. W. Applications of topology to general relativity. 359.
- Missio, Danilo. Misure su dielettrici con basse perdite a iperfrequenze. 1870.
- Mitani, S. s. Watase, Y. 940.
- Mitchell, A. M. J. and Phillips, G. Measurement, by nuclear resonance, of light water concentration in mixtures of light and heavy water. 1211.
- , Allan C. G. s. Graves, William E. 73, 964.
- , A. H. s. Kittel, C. 470.
- , A. R. Round-off errors in the solution of the heat conduction equation by relaxation methods. 2310.
- , Andrew R. and Murray, James D. Two dimensional flow with constant shear past cylinders with various cross sections. 1102.
- , E. N. Velocity spectrum of cosmic-ray particles at twelve-grams atmospheric depth. 1388.
- , E. W. J. Infra-red Faraday effect due to free carriers in a semiconductor. 649.
- , E. W. K. and Paige, E. G. S. Anisotropic absorption of the visible bands in irradiated α -quartz. 630.
- , G. R., Goldberg, A. E. and Kurnick, S. W. InSb photovoltaic cell. 477.
- , J. A., Schoonover, I. C., Dickson, George and Vacher, H. C. Factors affecting the dimensional stability of the silvertin-(copper-zinc) amalgams. 2546.
- , J. W. s. Evans, T. 2203.
- , R. T. and Liadansky, L. H. Effect of differential adaptation of the eyes upon threshold sensitivity. 1476.
- , T. P. s. Plesset, M. S. 19.
- Mittler, Henri. Correlation energy of helium. 1804.
- Mitra, A. P. Lunar semi-diurnal oscillation in the ionospheric absorption of 150 kc/s radio waves. 1914.
- and Jones, R. E. Recombination in the lower ionosphere. 523.
- , s. Peiffer, H. R. 888.
- , R. K. s. Baral, S. S. 1286, 2571.
- , S. s. Rao, M. V. K. Appa. 1757.
- , S. K. and Kundu, M. R. Thunderstorms and sporadic E ionization of the ionosphere. 2246.
- , S. S. s. Varshni, Y. P. 2320.
- , Shashanka Shukhar. Grundschnwingungen von zweiatomigen Molekülen. 996.
- Mitrakovic, Branko in Volčkov, Ilija. Kalorimetrische Bestimmung des Wirkungsgrades von Synchronogeneratoren. 1447.
- Mitrinovitch, Dragoslav S. Equation fonctionnelle. 2261.
- Mitrovic, Dragisa. Intégral de Dirichlet. 2261.
- Mitsuhashi, Hiroji. Balanced spectroradiometry. 855.
- Mittelman, Phillip S. and Liedtke, Robert A. Gamma rays from thermal-neutron capture. 2032.
- Mitter, H. und Urban, P. Streuung schneller Elektronen. III. Strahlungskorrekturen. 1601.
- , s. Heisenberg, W. 1093.
- Mittleman, M. H. Higher-order potential effects in the radiative correction to scattering of slow electrons. 617.
- Mittner, P. s. Bassi, P. 1323.
- Mitzner, Bernard M. and Lewin, S. Z. Simple variable thickness infrared absorption cell. 1678.
- Miura, Isao, Matano, Tsuneo, Toyoda, Yoshio and Murayama, Takashi. Penetrating showers produced in paraffin and graphite. 2400.
- Miwa, Mitsuo. Excitation function for the reaction ${}^7\text{Li}(\gamma t){}^4\text{He}$ up to 21 Mev. 768.
- and Kuriyama, Katsumi. Range-energy relation of triton in the nuclear emulsion up to 10 Mev. 1747.
- Miyachi, Yoshihiko. Meson production in meson-nucleon collisions. 940.
- Miyahara, Syôhei s. Sakamoto, Nobuhiko. 645.
- Miyakawa, Seinosuké s. Uémura, Taku. 1618.
- Miyake, Kozo s. Kimura, Kiichi. 2388.
- , Shizuo, Hoshino, Sadao and Takenaka, Toshio. Phase transition in cuprous iodide. 2423.
- Miyamoto, Goro s. Kaboyashi, Yoshiyuki. 1161, 2524.
- , S. Collisional emission spectra of cosmic clouds. 1082.
- , Yoneji s. Ito, Daisuke. 2270.
- Miyazishi, Michika and Watadani, Kunihiko. Effect of hydrogen gas on the excitation of auroral green line λ 5577 in discharge tubes. 2404.
- , Aging phenomenon in inert gas discharge tubes. 2495.
- Miyasaka, R. s. Oshida, I. 2409, 2410.

- Miyata, Nahonori and Funatogawa, Zenya.* Magneto-thermoelectric powers of nickel single crystals. 148.
- Miyatake, Osamu and Goodman, Clark.* Observations on the charge and mass distributions in nuclei. 2005.
- Miyatani, Shin-ya and Suzuki, Yasumasa.* Electric conductivity of cuprous sulfide: Experiment. 2476.
- Miyauchi, Takeshi s. Yamaguchi, Jiro.* 2479.
- Miyazawa, H.* Deviations of nuclear magnetic moments from the Schmidt lines. 2358.
- , *Hironari.* Sachs' theorem on the magnetic moments of nucleons. 568.
- and *Oehme, Reinhard.* Decay of spin-zero mesons into two leptons. 2001.
- , *Tatsuo s. Mizushima, San-ichiro.* 996.
- Mize, J. P., Bunker, M. E. and Starnes, J. W.* Radioactive decay of Yb^{175} . 1366.
- — Nuclear levels of Lu^{175} . 2028.
- s. *Brolley, J. E. jr.* 1539.
- s. *Browne, C. I.* 65.
- s. *Bunker, M. E.* 1369.
- s. *Duffield, R. B.* 964.
- Mizuno, Joji, Ogawa, Shiro and Hirone, Tokutaro.* Dependence of the intermetallic diffusion coefficient upon concentration. 110.
- Mizushima, Masataka, Cox, J. T. and Gordy, Walter.* Zeeman effect in the rotational spectrum of NO. 1778.
- s. *Lin, Chun C.* 1814.
- , *San-ichiro, Nakagawa, Ichiro, Ichishima, Isao and Miyazawa, Tatsuo.* Existence of the gauche-form of 1,2-dichloroethane. 996.
- , *Tsuboi, Masamichi, Shimanouchi, Takehiko and Tsuda, Yoshizo.* Spectroscopic investigation of the strength of hydrogen bonds formed by amides. 784.
- — *Sugita, Tadao and Yoshimoto, Toshio.* Near infrared spectra of compounds with two peptide bonds and the configuration of a polypeptide chain. IV. 2410.
- s. *Ichishima, Isao.* 380.
- Moak, C. D., Good, W. M. and Kunz, W. E.* Charged particles form the bombardment of Li^7 by He^3 . 1538.
- , *Reese, H. jr. and Good, W. M.* Design and operation of a radio-frequency ion source for particle accelerators. 231.
- Mobley, R. C. and Albritton, B. R. jr.* Amplitude and frequency stabilized adjustable high-frequency oscillator. 486.
- , *Blakewood, C. H. and Ralph, D. C.* Low voltage magnet and regulated power supply. 1017.
- Mockler, Richard C. and Bird, George R.* Microwave spectrum of carbon monosulfide. 1817.
- Mod, Robert R. s. Skau, Evald L.* 1939.
- Moe, Mildred M. and Saxon, David S.* Variational methods in scattering problems. 1795.
- Möhring, K. s. Lange, E.* 137.
- Möllenstedt, G. und Düker, H.* Fresnel-scher Interferenzversuch mit einem Biprisma für Elektronenwellen. 164.
- und *Hubig, W.* Substanzdifferenzierung im Elektronen-Emissionsmikroskop. Elektronenauslösung durch schrägen Atomstrahlbeschuß. 1888.
- Moller, C. s. Kristensen, P.* 901.
- , *C. K. s. Douglas, A. E.* 625.
- , *Chr. Knakkegaard s. Langseth, A.* 901.
- Möller, Hans-Georg s. Dieminger, Walter.* 2244.
- , *Hermann, Grimm, Walter und Weeber, Helmut.* Leistung eines 15-MeV-Betatron bei der Durchstrahlung von Stahl. 1472.
- Moeller, Therald, Pundsack, Fred L. and Cohen, Alvin J.* Relationships among the absorption spectra of the 5,7-dihalo-8-quinolinol chelates of gallium (III) and indium (III). 2413.
- Möller, U. s. Kelbg, G.* 2314.
- Moellering, William und Jensen, J. Hans D.* Winkelkorrelationen bei Röntgen- und optischen Kaskaden. 1182.
- , *W. M., Zemach, A. C., Klein, A. and Low, F. E.* Spatial extension of the proton magnetic moment from the hyperfine structure of hydrogen. 1809.
- Mönch, Ernst und Jira, Rudolf.* Photoplastizität von Celluloid am Rohr unter Innendruck. 112.
- s. *Föppl, Ludwig.* 1502.
- , *G. C.* Änderung der Voltaspannung mit der Temperatur. 1222.
- , *Günther Christian.* Grenzflächenefekte an Metallen und Halbleitern. 2171.
- Moesta, H. s. Schäfer, Kl.* 639.
- Moffat, R. D. s. Davis, Robert H.* 1790.
- s. *Diratut, Ajay S.* 1790.

- Moffat, R. J. D. s. Langer, L. M.* 61.
- Mohanti, H. B. and Booth, A. D.* Electronic Fourier synthesizer. 545.
- , *S. R.* Disappearance of adsorbed gases from dielectric surfaces under electroless discharge. 840.
- Mohanty, S. R.* Heat conductivity-viscosity relationship for liquids. 203.
- Diminution de la différence de potentiel-limite pour des vapeurs et des gaz électro-négatifs soumis à des décharges continues sans électrodes. 1444.
- Energetics of elimination of adsorbed gases from dielectric surfaces under electrodeless discharge. 1662.
- Frequency of the irradiating light as a determinant of the Joshi effect in oxygen under silent electric discharge. 2414.
- and *Rao, P. Srinivasa.* Inversion potential of the Joshi effect and light intensity. 145.
- Potential dependence of the Joshi effect inversion with light intensity. 2164.
- , *Rao, K. R. K. and Bhat, T. R.* Production of the Joshi effect in oxygen under the near infrared. 2165.
- Mohler, Fred L. s. Bradt, Paul.* 2435.
- *s. Dübeler, Vernon.* 1618.
- *N. s. Faug, S.* 1521.
- , *Nora M., Lorenz, Lilly and Bunce, Elizabeth T.* Elementary laboratory for premedical students. 1919.
- Mohorovićić, S.* Einfallswinkel (ϵ) als Funktion des Ablenkungswinkels (δ) und der Brechungszahlen (n, n'). 161.
- Messung der Krümmungsradien von Probegläsern mit dem Ringsphärometer. 310.
- Beiträge zur optischen Abbildung. I. 688.
- Erweiterung des paraxialen Abbildungsbereiches. 2199.
- Mohr, C. B. O. and Robson, B. A.* Calculations with the optical model of the nucleus. 2387.
- *H.* Spezialplatten der Filmfabrik AGFA Wolfen für die Raman-Spektroskopie. 2202.
- *O.* Mechanische, hydraulische und elektrische Steuerung und Regelung bei Werkzeugmaschinen-Antrieben. 2275.
- Mohrbacher, J. A. s. Bracken, J. T.* 1976.
- Moisseff, Jacques.* Bestimmung der Temperaturen der Schneidkante von Schneidwerkzeugen mittels einer Analogiemethode. 2308.
- Molard, P.* Séismographes à amplification électrostatique. 1085.
- Moldauer, P. A. and Case, K. M.* Non-relativistic limit of spin $k + \frac{1}{2}$ particle wave equations. 6.
- Molière, K. und Niehrs, H.* Interferenzbrechung von Elektronenstrahlen. III. Bestimmung der Kristall-Orientierung, der Strukturfaktoren und des Brechungspotentials von Magnesiumoxyd-Kristallen aus den Feinstrukturen der Elektronenbeugungsreflexe. 1002.
- Moljk, A., Drever, R. W. P. and Curran, S. C.* Trace-quantity analysis: Neutron activation applied to potassium-mineral dating. 1124.
- Moll, J. L. s. Ebers, J. J.* 2138.
- , *John L.* Large-signal transient response of junction transistors. 2138.
- , *W. L. H.* Aufladung an der Grenzfläche Dielektrikum-Metall bei tiefen Temperaturen. 1051.
- Molyneux, L.* Transistor symbol. 294.
- Anode control of small thyatrons. 1725.
- Momose, K. s. Matsuzaki, H.* 2239.
- *s. Nagata, T.* 2240.
- Momota, Teruo s. Hattori, Manabu.* 772.
- Monahan, J. E. and Langsdorf, A. jr.* Analysis of neutron self-indication transmission cross sections. 1379.
- *s. Church, E. L.* 970.
- *s. Langsdorf, A.* 1379.
- Monchick, Louis and Reiss, Howard.* Evaporation of small drops. 2450.
- Moncibowycz, Alexander und Walter, Kurt.* VW Cephei 1942. Photometrische Studie. 350.
- Mondragón, A.* Scattering length and effective range for velocity dependent tensor forces. 1535.
- Moneti, G. C. s. Alexander, G.* 561.
- Monfils, André s. Buyle-Bodin, Maurice.* 1643.
- *s. Duchesne, Jules.* 1422.
- Mongar, J. L. and Wassermann, A.* Fully swollen alginate gels as permutites: Kinetics of calcium-sodium ion exchange. 383.
- Monier, Jean Claude et Weil, René.* Essais d'épitaxies donnant des résul-

- tats négatifs à partir de solutions et positifs à partir de vapeur. 1007.
- Monk, C. B.* Electrolytes in solutions of amino acids. V. Solubilities of calcium, barium and lanthanum iodates in glycine, alanine and glycyl-glycine. 750.
- Electrolytes in solutions of amino acids. I. Conductivity of potassium chloride in aqueous glycine solutions. II. Cupric complexes of glycine, alanine and glycyl-glycine. 2154, 1963.
- , *George S.* Coloration of optical glass by high-energy radiation. 2398.
- Monrad, C. C. s. Rothfus, R. R.* 737.
- Monse, E. U. s. Wänke, H.* 556.
- , *Ernst Ulrich s. Lundén, Arnold.* 1141.
- Montagner, Serge le s. Bot, Jean le.* 113.
- Montagnon, Noel B. L. F.* noise in resistors. 1039.
- Montarnal, R.* Méthode de Barrett et Joyner de détermination des diamètres de pores à partir de l'isotherme d'adsorption à l'azote. 269.
- Monteath, G. D.* Application of the compensation theorem to certain radiation and propagation problems. 1874.
- Montel, Paul.* Critère de normalité. 2259
- Montero, E. s. Vigon, M. A.* 2031.
- Montet, s. Barrère.* 1730.
- , *G. L., Kurs, A. F. and Hennig, G. R.* Tracer studies on radiation damaged graphite. 1388.
- Montgomery, G. Franklin.* Comparison of amplitude and angle modulation for narrow-band communication of binary-coded messages in fluctuation noise. 1451.
- , *H. C. and Brown, W. L.* Field effect in germanium. 2126.
- *s. Pearson, G. L.* 2139.
- Montique, J.* Measurement of moisture content. 1744.
- Montis, V. Hernández s. Brú, L.* 628.
- Montejo, José.* Interferometrische untersuchung der Qualität der Ferngläser. 1062.
- , *y Belda.* Curvatura de campo. 684.
- Montroll, Elliott W. and Potts, R. B.* Effect of impurities on lattice vibrations. 2069.
- Moodie, Margaret M. and Reid, C.* Inter- and intramolecular energy transfer processes. 4. Hydrogen-hydrocarbon systems. 1266.
- Moon, P. B.* Space charge and ionization phenomena in constant-gradient proton synchrotrons. 1125.
- Mooney, M. and Wolstenholme, W. E.* Rheological unit in raw elastomers. 1631.
- , *R. T. s. Braestrup, C. B.* 1278.
- Moore, A. s. Williamson, G. K.* 1820.
- , *A. R. and Webster, W. M.* Surface recombination and the floating junction. 132.
- *s. Stripp, K. F.* 2480.
- , *Charlotte s. Russell, Henry Norris.* 2403.
- , *Charlotte E. s. Meggers, William F.* 1291.
- , *D. C. and Hanson, R. J.* Čerenkov counter for high-energy cosmic rays. 1980.
- , *Dan H. s. Dmochowski, Leon.* 2223.
- *s. Morgan, Councilman.* 2222.
- , *Donald W. s. Burkardt, Lohr A.* 12.
- , *Fletcher L. and Smith, Gilbert W.* Electrodeposition of plutonium. 57.
- , *G. E. s. Benedict, W. S.* 1814.
- *s. Herman, R.* 1814.
- *s. Hochheimer, B. F.* 1253.
- , *George E. and Hughes, W. T.* Dissociation of solid compounds by electron bombardment. 618.
- , *H. s. Dingwall, Andrew C. F.* 263.
- , *H. R.* Bent crystal X-ray spectrometer with roller bearing rotation mechanism. 855.
- and *Chalklin, F. C.* K-series emission spectrum of neon. 1397.
- , *J.* Slow neutron resonance scattering in indium. 1553.
- *s. Foote, H. L. jr.* 1380.
- *s. Sheer, C.* 959.
- , *J. B.* System of logarithmic units. 1933.
- , *N. P. W. and Simonson, J. R.* Ignition of methane-air mixtures by rapid compression. 217.
- *s. Gaydon, A. G.* 1116, 1321.
- , *R. L. s. Browne, C. I.* 65.
- , *Richard L.* Spins of excited states of some odd A nuclei according to the collective model. 67.
- , *R. W. s. Allison, M.* 2362.
- , *Walter J.* Flow of oxide layer during oxidation of copper. 2427
- Mooring, F. P. s. Holland, R. E.* 590, 1787.
- , *F. Paul s. Langsdorf, A.* 1379.

- Moos, W. S. and Sponberg, F. CdS-crystal probes are convenient for dosimetry in body cavities. 2227.
— s. Beattie, J. W. 1079.
- Mooser, E. Magnetic susceptibility of impurity-trapped electrons and holes in semiconductors. 1854.
— and Pearson, W. B. Chemical bond in semiconductors. 2468.
— and Woods, S. B. Thermoelectric power of germanium at low temperatures. 473.
- Moppert, K.-F. und Grün, F. Langevin-Gleichung. 1513.
- Morais, C. Proyecto de sistemas con doble reflexión. 321.
- Morán, Francisco. Obtencion de las formulas termodinamicas. 1961.
- Moran, Hubert S. Modification of the Beckman model DU spectrophotometer for the measurement of interference filters. 685.
—, P. A. P. s. Gani, J. 2579.
- Morant, M. J. Experiments on electron emission in spark gaps. 669.
—, M. J. and House, H. Work function and patch field of an irregular metal surface. 844.
- Moravcsik, Michael J. Coulomb scattering of electrons at very small angles. 1599.
— and Sellen, J. Michael jr. Scattering of electrons in a strong focusing synchrotron. 1126.
- Morawetz, H. Measurement of molecular weight of polyethylene by Menzies-Wright boilingpoint elevation method. 453.
— s. Chang, Leo S. 202.
—, Herbert s. Turner, Alfrey jr. 2082.
- Morduchow, Morris. Method of averages and its comparison with the method of least squares. 2273.
- More, W. de s. Wilcox, W. S. 434.
- Moreau, Charles et Lepoutre, Gérard. Effet thermoélectrique dans les électrolytes. 1. Etude thermodynamique. 139.
—, Jean. Spectromètre β permettant l'étude des rayonnements β - γ en coincidence. 1981.
- Morillet, D. s. Crussard, J. 393, 2000.
— s. Hoang, T. F. 1136.
- Morilli, Carlo. Rilievo gravimetrico dell'alto adriatico. 2564.
—, Variazione diurna della gravità in Europa. 2564.
- Morgan, Councilman, Ellison, Solon A., Rose, Harry M. and Moore, Dan H. Effect of drying on the structure and shape of certain viruses. 2222.
—, G. W. Wave propagation in elastic tubes filled with streaming, viscous liquid. 914.
—, Ira L. Interaction of 3.7 Mev neutrons with Al, S, Fe and Cu. 1595.
— s. Bostrom, Norman A. 1539, 1979.
— s. Sattar, Abdul R. 1542.
—, K. Z. s. Cook, M. J. 1695.
— s. Davis, D. M. 1989.
—, R. S. Caesium 137 for industrial radiography. 1268.
—, S. P. s. Gilbert, E. N. 1452.
—, T. J. s. Schmidt, F. H. 390.
- Morgans, W. T. A. s. Pomeroy, C. D. 2548.
- Mori, Hideo s. Yamaguchi, Jiro. 2479.
—, Shigeru s. Kobayashi, Yoshiyuki. 1161.
- Morimoto, N. s. Ito, T. 2066.
- Morin, F. J. Electrical properties of α -Fe₂O₃. 474.
— Electrical properties of NiO. 474.
— and Geballe, T. H. Electrical conductivity and Seebeck effect in Ni_{0.80}Fe_{0.20}O₄. 1427.
— and Muña, J. P. Electrical properties of silicon containing arsenic and boron. 2471.
—, Reiss, Howard and Fuller, C. S. Ion pairing involving lithium in germanium and silicon. 1862.
— s. Hrostowski, H. J. 1860, 2130.
—, Georges. Radioéléments utilisés comme traceurs en biologie. 2551.
- Morinaga, H. (γ , p) and (γ , n) yield ratios from self-conjugate nuclei. 55.
— Effects of isotopic spin selection rules on photonuclear yields. 575.
— New radioactive isotope scandium-42. 1149.
— Reaction Ni⁶⁸ (α , γ) Zn⁶². 1795.
— Alpha-gamma reaction. 2364.
— Excited states of 4n self-conjugate nuclei. 2374.
— and Bleuler, E. Scandium-50. 964.
— s. Bleuler, E. 1372.
- Morita, M and Tamura, T. Binding energy and properties of lower energy levels of Li⁶. 1783.
—, Fuita, J. and Yamada, M. β -spectrum of Fe⁵⁹, Rb⁸⁷, Te⁹⁹, Cs¹³⁷, and the couplin constants of scalar and tensor interactions in β -decay. 1162.

- Morita, Masato.* Interference terms of β -ray angular correlations. 2384.
- Coexistence of tensor and axialvector interaction in β -decay. 2384.
- and *Yamada, Masami.* β - γ angular correlation of Sb^{124} . 1367.
- — β - γ angular correlation of Sb^{124} . II. 2381.
- , *Fujita, Jun-ichi* and *Yamada, Masami.* β -spectra of Fe^{59} , Rb^{87} , Tc^{99} , Cs^{137} and the coupling constants of scalar and tensor interactions in β -decay. 1162.
- s. *Kikuta, Takashi.* 1532.
- Morita, Sakae.* Sonde method of measuring the ultrasonic field intensity. 2306.
- Moriuchi, Yasuyuki* s. *Suguri, Susumu.* 1276.
- Morlin, Z.* Untersuchung der Rekristallisationsvorgänge. 1626.
- Morlock, G. s. Fischer, H.* 295.
- Morpurgo, G. and Radicati, L. A.* Dipole selection rule in ^{16}O . 772.
- and *Touschek, B. F.* Space and time reflection of observable and non-observable quantities in field theory. 718.
- Morrey, Charles B. jr.* Derivation of the equations of hydrodynamics from statistical mechanics. 1308.
- Morris, A., McGuire, Frederick L. and Cott, Harold P. van.* Accuracy of the Macbeth illuminometer as a function of operator variability, calibration and sensitivity. 1884.
- , *Katz, Milton S. and Bowen, Jane D.* Refinement of checkerboard targets for measurement of visual acuity limits. 1476.
- s. *Smith, Stanley W.* 1475.
- , *A. R.* Photographic method of obtaining stress trajectories. 1100.
- *D.* Molecular ions in discharges in the inert gases. 2492.
- s. *Boyd, R. L. F.* 2343.
- *David.* Q as a mathematical parameter. 2510.
- , *D. F. C. and Brewer, F. M.* Spectrochemical determination of gallium in blends. 506.
- , *G. R.* Differential equation for undamped forced non-linear oscillations. I. 1304.
- , *J. B. and Strickland-Constable, R. F.* Rate of crystal growth from the melt. 1194.
- Morris, Kelso B., Cook, Marlene I., Sykes, Z. Clarice and Templeman, Malcolm B.* Densities, molal volumes and electrical conductivities of the molten system: Molybdenum trioxide-sodium molybdate. 1304.
- , *Lloyd W. s. Hodge, Bartow.* 2399.
- , *R. H. and Morrissey, J. H.* Objective method for determination of equivalent neutral densities of color film images. II. Determination of primary equivalent neutral densities. 861.
- , *T. F.* Elementary particle models. 365.
- , *T. W. Garrison, J. D., Fowler, E. C., Fowler, W. B., Shutt, R. P., Thorndike, A. M. and Whittemore, W. L.* Proton-proton scattering at 900 Mev. 1375.
- Morrish, A. H.* Grain density in tracks of electrons moving at relativistic velocities in photographic emulsions. 1977.
- and *Yu, S. P.* Magnetic measurements on a single microscopic particle. 2280.
- Morrison, D. R. O. s. Wright, I. F.* 952.
- , *G. C., Muirhead, H. and Murdoch, P. A. B.* Selection of potentials in nucleon-nuclear scattering problems. 773.
- s. *Batchelor, R.* 572.
- , *H. L. s. Backman, M. E.* 170.
- , *Harvey L. s. Mayfield, Earle B.* 1732.
- , *J. A. s. Teichner, S. J.* 2089.
- , *J. D.* Ionization efficiency. IV. Electron spectra of some simple molecules. 2056.
- , *P.* Solar-connected variations of the cosmic rays. 987.
- Diffusion of cosmic rays in the earth-sun region. 987.
- , *R. B.* Thyatron index and time-marking unit. 812.
- , *S. R.* Surface levels, their influence on the field effect and 1/f noise. 650.
- , *S. J. and Phillipson, S. M.* Illuminator for detecting air lines in glass tubing. 1899.
- Morrissey, J. H.* Method for the assignment of psychometric scale values from incomplete paired comparisons. 702.
- s. *Morris, R. H.* 861.
- Mors, H.* Freileitungen. 1291.
- Morse, Philip M. und Feshbach, Herman.* Feldbegriff in der theoretischen Physik. 2264.

- Morse, R. W. Ultrasonic attenuation in metals by electron relaxation. 1735.
- Morton, B. R., Taylor, Sir Geoffrey and Turner, J. S. Turbulent gravitational convection from maintained and instantaneous sources. 736.
- , C. d. c. and a. c. balance detector with automatic protection from overload. 680.
- , Joseph L. s. Callendine, George W. jr. 346.
- , K. W. s. Eyeions, D. A. 245.
- , Maurice and Salatiello, Peter P. Cross-linking reaction in butadiene polymerization. 452.
- , P. H., Treon, R. and Baldwin, W. M. jr. Low temperature embrittlement mechanics deduced from zinc single crystal fracture studies. 1101.
- Mosaner, H. Deutsche Industrieausstellung Berlin 1953. 2257.
- Moser, C. Reflecting spectrograph camera. 1678.
- , Carl M. s. Lefebvre, Roland. 1812.
- , F. s. Urbach, F. 693.
- , Frank and Urbach, Franz. Silver halide phosphors. 1265.
- , s. Nail, Nelson R. 1467.
- , Heribert. Photographische Wiedergabe von Spektrallinien. 156.
- , s. Brandmüller, Josef. 1187.
- , Paul M. s. Trambarulo, Ralph. 998.
- Moses, H. A. s. Spence, R. D. 121.
- , H. E. Application of variational principles to scattering problems. 5.
- , s. Kay, I. 599, 1166, 1495, 1496.
- , Harry E. Exchange scattering in a three-body problem. 1180.
- Mosher, R. F. s. Peterson, O. S. jr. 1278.
- Moshinsky, Marcos s. Adem, Julián. 380.
- Moskowitz, David s. Post, Benjamin. 1192.
- Moss, Hilary. Recurrent sweep chronograph for the measurement of small time intervals especially in ballistics. 920.
- , R. L. s. Harpur, W. W. 1037.
- , S. H. Pulse distortion. 1056.
- , T. S. Measurements on p-n junctions in lead sulphide. 475.
- , Photovoltaic and photoconductive theory applied to InSb. 1432.
- , and Hawkins, T. H. Recombination radiation from InSb. 2131.
- , s. Landsberg, P. T. 2468.
- Mossop, S. C. Sublimation nuclei. 1088.
- , Nucleation of supercooled water by various chemicals. 1319.
- Moszkowski, S. A. s. Melkanoff, Michel A. 2389.
- , Steven A. Particle states in a spheroidal potential. 366.
- , Particle states in spheroidal nuclei. 1531.
- Mote, F. A. Variability of measurements of human dark adaptation. 699.
- Moteff, John. Tenth-value thicknesses for gamma-ray absorption. 1886.
- , Energy spectrum of gammas from gross fission products. 2032.
- Motley, R. s. Fitch, V. 1521.
- Motokawa, Koiti and Isobe, Kosaku. Spectral response curves and hue discrimination in normal and color-defective subjects. 701.
- , s. Isobe, Kosaku. 698.
- Motschmann, Harald. Messung der Oszillatorenstärke einiger NI-Linien im wasser- und luftstabilisierten Lichtbogen. 781.
- Mott, B. W. s. Woodrow, J. 2525.
- , W. E. s. Sutton, R. B. 417.
- Motte, S., Lochet, R. et Clastre, J. Action du zinc et de l'amalgame de zinc sur les couches sensibles photographiques. 1467.
- Mottelson, Ben s. Bohr, Aage. 2004.
- , B. R. and Nilsson, S. G. Magnetic moment and rotational spectrum of thulium¹⁶⁹. 60.
- , Classification of the nucleonic states in deformed nuclei. 1764.
- Motz, H., Crowe, K. M. and Friedman, R. M. π^-/π^+ ratios in asymmetric nuclei 943.
- , s. Crowe, K. M. 943, 1526.
- , Hans, Crowe, K. M. and Friedman, R. M. π^-/π^+ ratios in photoproduction. 1526.
- , s. Friedman, R. M. 1526.
- , Henry. Gamma-ray spectrum of $(d^{113}(n\gamma)Cd^{114})$. 1794.
- , s. Grodzins, Lee. 964.
- , J. W. Bremsstrahlung differential cross-section measurements for 0.5- and 1.0-Mev electrons. 1600.
- , and Miller, William. Differential cross-section measurements for 1-Mev bremsstrahlung. 1171.
- , s. Miller, William. 422.
- Mougín, B. Montage du cristal de NaI(Tl) dans un boîtier étanche. 1325.
- Mould, R. E. and Mapother, D. E. Effect of precipitation hardening on the

- superconducting transition of an aluminum alloy. 127.
- Moulthrop, Peter H. Pion production by neutrons on helium. 1524.
- Mourcin, P. s. Guizonnier, R. 2154.
- Mourques, L. de s. Eyraud, Ch. 1841.
- Mourier, G. s. Leblond, A. 304.
- Moussa, A. Spectrographie β à prisme et double focalisation réalisé au moyen de bobines sans fer. 1981.
- Moussard, Mme Anne-Marie s. Brenet, Jean. 2486.
- Mower, Lyman. Variational calculation of electron scattering by a static potential. 1598.
- Moyal, J. E. Momentum and sign of fast cosmic ray particles. 2045.
- s. Edwards, D. A. 219.
- Moyer, Burton s. Cohen, David. 62.
- , B. J. s. Bandtel, K. C. 1342, 1602.
- s. Hess, W. N. 573, 2366.
- B. J. s. Waddell, Charles. 62.
- , Burton J. Survey methods for fast and high-energy neutrons. 1981.
- s. Brabant, John M. 1529.
- s. Millburn, George P. 1542.
- s. Shaw, Harlan. 559.
- s. Squire, Robert K. 1778.
- s. Wilcox, John M. 1168.
- Mozley, R. F. s. Bichsel, H. 2033.
- s. Dayton, I. E. 118.
- Mrowca, B. A. s. Banas, E. M. 1412.
- s. Honnold, V. R. 2434.
- Mrowka, B. Friedrich Hund 60 Jahre. 1290.
- Muchmore, R. B. and Wheelon, A. D. Line-of-sight propagation phenomena. I. Ray treatment. 2507.
- s. Wheelon, A. D. 2508.
- Mücke, Leonhard s. Schardin, Hubert. 2547.
- Mügge, R. Grundwasser als geophysikalischer Detektor. 1703.
- Mühlberg, Heinz s. Lorenz, Wolfgang. 660.
- Mühleisen, R. and Holl, W. Messung der elektrischen Raumladungsdichte der Luft. 525.
- Muehlhause, C. O. and Oleksa, S. β -energy distribution from thermal fission of ^{235}U . 1778.
- and Thomas, G. E. Use of the pile for chemical analysis. 936.
- jr. Two liquid scintillation neutron detectors. 1980.
- s. Bloom, S. D. 1383.
- Müller, A. s. Biber, C. 974.
- Müller, Adolf. Verhalten von Ionenkollonen in reinen Gasen. 2163.
- Mueller, Charles R. s. Cahill, Joseph M. 1300.
- , C. W. s. Stone, R. P. 2518.
- Müller, E. A. s. Becker, W. 881.
- , Edith A. Dreifarben-Photometrie des offenen Sternhaufens NGC 654 und einer benachbarten Sterngruppe. 881.
- , E. W. s. Drechsler, M. 2048.
- , Erwin W. Work functions of tungsten single crystal planes. 844.
- Feldionenmikroskop. 2206.
- , F. H. Kaltver Streckung. 2431.
- und Huff, Karl. Beeinflussung des dielektrischen Relaxationsspektrums durch Molekülorientierung (Neuauf tretende Dispersionsstellen). 2084.
- , G. und Finkelnburg, W. Kathoden- und Anodenfall eines Kohlelichtbogens hoher Stromstärke. 2495.
- , H. Randverdunkelung der radiofrequenten Sonnenstrahlung. 1907.
- und Leibfried, G. Oberflächenerscheinungen auf gedehnten Aluminium-Einkristallen in ihrer Abhängigkeit von der Dehngeschwindigkeit. 200.
- , H. G. Theorie der Koerzitivkraft des Bariumferritdauermagneten Maniperm. 1420.
- , Hans-Günter s. Kochendörfer, Albert. 1074.
- , H. H. s. Fucks, W. 1866.
- , Hans Robert. Integrale bei mehrgliedrigen Bewegungsvorgängen. 371.
- , K. und Ruska, E. Elektromagnetisches Durchstrahlungsmikroskop für Elektronen von 40 bis 60 kV. 1258.
- , K. A. s. Busch, G. 473.
- Mueller, Melvin H. s. Chernock, Warren P. 866.
- Müller, P. Untersuchung von Geiger-Müller-Zählrohren mit Röntgenimpulsen. 1975.
- , R. s. Ibl, N. 657.
- , Reinhard. Elektromagnetische Wellen in metallischen Hohlzylindern von kreisförmigem Querschnitt. 1665.
- , Rolf. Visuelle Photometrie der Protuberanzenemissionen b_1 — b_4 . 349.
- Statistik der Koronastrahlen. 877.
- Schlitzblende im Wellenleiter mit rechteckigem Querschnitt. 2179.
- s. Goubau, Georg. 1706.
- , S. Siliciumreinigung durch tiegelfreies Zonenschmelzen. 1650.

- Müller, W. Biegungstheorie einer Vierpilzplatte mit rechteckigen Stützflächen. 919.
- s. Richter, H. 1505.
- Müller-Hillebrand, D. Ion capture on polarised drops. 889.
- Limitations of the Wilson thunderstorm theory. 890.
- Muench, N. L. and Rorschach, H. E. jr. Displacement of the superconducting critical field by pressure. 1648.
- , Nils L. Effect of stress on superconducting Sn, In, Tl, and Al. 1215.
- Münch, W. v. s. Salow, H. 2137.
- Muendel, C. H. s. Makansi, M. M. 2319.
- Muenger, J. R. s. Barber, E. M. 202.
- Münnich, F. Diffusion von Zink in Zinkoxyd. 1828.
- Münster, A. Theorie der Einstein-Kondensation. 1719.
- und Sagel, K. Elektrische Eigenschaften von Titanitrid und Titan-carbid. 1032.
- Kritischer Punkt im festen Zustand des Systems Aluminium-Zink. 1075.
- , Arnold. Généralisation des théories statistiques des solutions de hauts polymères. 804.
- Mues, G. s. Fucks, W. 1866.
- Müser, Helmut A. Thermospannungsmessungen an belichtetem Bleisulfid. 1225.
- Muffang, P. J. A. Néphélographe. 1709.
- Mugibayashi, Nobumichi and Namiki, Mikio. Perturbation theory of relativistic eigenvalue problem. 1295.
- s. Namiki, Mikio. 2266.
- Muir, D. R., Graham, J. R. and Gordon, A. R. Determination of the adjusted indicator concentration behind a moving boundary in dilute solution: system potassium chloridesodium chloride in water at 25°. 2322.
- Muirhead, H. and Rosser, W. G. V. Nuclear interactions produced in carbon, nitrogen and oxygen by 140 mev protons. 1357.
- s. Bosley, W. 1977.
- s. Duke, P. J. 774.
- s. Lock, W. O. 768.
- s. Morrison, G. C. 773.
- Mulder, Marjorie M. s. Green, Louis C. 619.
- s. Lewis, Margaret N. 96. 1886.
- Mulford, D. F. s. Warson, H. H. 2491.
- Muller, F. s. Armenteros, R. 939. 2352.
- , Norbert s. Pickett, Lucy W. 100.
- , Théo s. Gorodetzky, Serge. 74.
- Mulley, Joan W. s. Meakins, R. J. 805.
- Mulliken, R. S. s. Pickett, Lucy W. 100.
- Mullin, C. J. and Guth, E. Theory of nuclear excitation in inelastic electron scattering. 592.
- Mulvey, T. s. Haine, M. E. 1677.
- Munakata, Yasuo s. Komatsuzawa, Akira. 2349.
- Muncey, R. W. s. Nickson, A. F. B. 2305.
- Munday, G. L. s. Allen, R. A. 77.
- Munesue, Seiji s. Sakata, Toshimichi. 1223.
- Mungall, A. G. s. Henderson, J. T. 1096.
- s. Middleton, W. E. K. 2198.
- Municio, A. M. Reacciones de cambio de ion en química orgánica. 2327.
- Munick, Raymond J. Electrical conduction in plexiglas. 1436.
- Munk, E. und Batz, P. Dualzahlen-speicher für Impulstastung mit Transistoren. 1292.
- Muñoz, M. García und Maeder, D. Eichung von Szintillationsspektrometern mit den γ -Strahlen von Radium und von Mn⁵⁶. 1122.
- s. Gerber, H. J. 1579.
- Munschy, G. Étude d'une famille de fonctions d'onde approchées pour l'atome d'hélium. 723.
- Munson, Thomas R. s. Evans, William H. 2309.
- Muntean, E. Klinische Erfahrungen mit der direkten Röntgenvergrößerungsaufnahme. 705.
- Murai, K. s. Kitagawa, N. 2576.
- , Naomichi s. Yoshimatsu, Seiichi. 2478.
- Murakami, Terutosi. Atomic distribution in binary solid solutions. II. Modified theory for the case of nearly equal concentrations. 2545.
- III. Diffuse scattering of X-rays by binary alloys. 2545.
- IV. Influence of the short-range order on the electrical resistivity of alloys. 2545.
- Murakawa, Kiyoshi. Hyperfine structure of the spectrum of Mn I. 1398.
- Isotope shift in Cd II λ 4415. 1806.
- Hyperfine structure of the spectra of Nd and Gd. 1806.
- Nuclear moments of Mo⁹⁵, Mo⁹⁷, Zr⁹¹, I¹²⁷, Sb¹²¹ and Sb¹²³. 1806.

- Murakawa, Kiyoshi. Nuclear moments of Nb^{93} , La^{139} , Os^{187} and Hg^{201} . 2050.
- Murata, K. J. s. Dutra, C. V. 503.
- Murayama, Takashi s. Miura, Isao. 2400.
- Murbach, E. W. s. Auer, P. L. 1632.
- Murcott, Neville and Gottfried, Hanna T. Photographic resolving power and aberrations of lenses. 1457.
- Murdoch, P. A. B. s. Morrison, G. C. 773.
- Murgai, M. P. Equation of state for the detonation of condensed explosives. 32.
- Muroga, Saburo. Capacity of a discrete channel. I. Mathematical expression of capacity of a channel which is disturbed by noise in its every one symbol and expressible in one state diagram. 220.
- Murphy, B. Positive-point d. c. corona. 2490.
- , Robert J. s. Meggers, William F. 428.
- Murray, B. s. Sakai, M. 67, 968.
- , B. B. s. Kurbatov, J. D. 961.
- , C. T. and Holway, D. L. Equipment for solving potential and other field problems. 813.
- , J. D. s. Wild, J. P. 876.
- , James D. s. Mitchell, Andrew R. 1102.
- , J. J., Boehm, F., Marmier, P. and DuMond, J. W. M. Decays of Ta^{182} and Ta^{183} . 586.
- , Snelgrove, P., Marmier, P. E. and DuMond, J. W. M. Decay of Ta^{183} . 579.
- , Joseph J. s. Brabant, John M. 1529.
- , R. B. and Roberts, L. D. Extension of molecular field theory to a hexagonal lattice. 646.
- , s. Roberts, L. D. 646.
- , R. C. and Hall, A. R. Flame speeds in hydrazine vapour and in mixtures of hydrazine and ammonia with oxygen. 753.
- , Raymond L. Storage of radioactive gases from reactor operation. 1989.
- , R. L., Keller, M. R. and Hostetter, D. E. Fission-spectrum formula in reactor calculations. 1126.
- , Raymond L. s. Hostetter, Donald E. 560.
- Murrell, J. N. Electronic spectrum of aromatic molecules. VI. Mesomeric effect. 999.
- and Pople, J. A. Intensities of the symmetry-forbidden electronic bands of benzene. 1622.
- s. Longuet-Higgins, H. C. 999.
- Murthy, Bh. V. Ramana s. Ramanathan, K. R. 2250.
- Muschaid, W. s. Buttler, W. M. 1225.
- Muschlitz, E. E. s. Bailey, T. L. 780.
- Musgrave, M. J. P. s. Miller, G. F. 2282.
- Musikant, Sol. Vibration damping characteristics of glass fiber cushioning. 1953.
- Musulin, Boris s. Frost, Arthur A. 995.
- s. Wertz, John E. 1848.
- Mutaftschiew, B. s. Kaischew, R. 2160.
- Muth, Hermann. Strahlenschutzprobleme bei der Anwendung radioaktiver Isotope. 1278.
- Muthana, M. S. s. Kaufman, H. S. 453.
- Myard, Francis. Résolution grapho-mécanique des relations $\varphi(x) = f(x) \cdot f'(x)$, $\Psi(x) = f(x) / f'(x)$. 358.
- Myers, H. P. s. Brockhouse, B. N. 1211.
- s. Butters, R. G. 336, 2065.
- , Nancy A. s. Leibowitz, H. W. 700.
- , Robert J. s. Kunin, Robert. 383.
- , Rollie J. s. Johnson, Russell D. 787.
- , William G., Colmery, Benjamin H. jr. and McLellan, Waldron M. Radioactive gold-198 for gamma radiation therapy. 2557.
- Mysels, Karol J. Use of calomel half cells to measure Donnan potentials. 2158.

N

- Naas, Josef. Forschungsarbeit der Akademie im Jahre 1952. 1918.
- Nabholz, H., Stoll, P. und Wäffler, H. Richtungsverteilung der im Prozeß $\text{Li}^7(p, \gamma)\text{Be}^8$ emittierten Gammastrahlung und die Anregungszustände von Be^8 . 596.
- Nablo, S. V. s. Johns, M. W. 71.
- Nachtrieb, Norman H., Catalano, Edward and Weil, John A. Self-diffusion in solid sodium. I. 2426.
- , N. H., Weil, J. A., Catalano, E. and Lawson, A. W. Self-diffusion in solid sodium. II. Effect of pressure. 2426.
- Nadelhaft, Irving s. Sitte, Kurt. 990.
- Nadi, Abdel Fattah el s. Ortner, Gustav. 1914.
- Nadler, N. J. Quantitative estimation of radioactive isotopes by radioautography. 2558.
- Nábauer, Martin. Einfluß eines zirkularen, geschlossenen Magnetfeldes auf den supraleitenden Zustand eines einkristallinen Bleiholzzylinders. 1214.

- Nag, B. D. and Sayied, Abul Maksud.* Electrodynamics of moving media and the theory of the Čerenkov effect. 2189.
- Nagahara, Sigeru.* Scattering of slow electrons by the diatomic molecules. I. General theory. II. Elastic scattering by the hydrogen molecules. 2402.
- Nagai, Tamotsu.* Numerical estimation of flow in beams with projected parts of strain hardening material. 1102.
- Nagamiya, T.* Zero point entropy of methane crystal. 2419.
- Theory of antiferromagnetism and antiferromagnetic resonance absorption. I. 2462.
- , *Takeo.* Tentative interpretation of Bickford's observation of the resonance absorption in magnetite below its transition point. 1424.
- Nagao, S. s. Sugita, K.* 805.
- , *Shigeo s. Satō, Tadashi.* 2548.
- Nagasaki, M. and Tamura, T.* Excited states of even-even nuclei. 1151.
- *Nagase, S. s. Iwasaki, M.* 2054.
- Nagashima, Tomio, Yamamoto, Takaaki and Nakamura, Yutaka.* Induction change due to mechanical shock in permalloy. 2455.
- , —, — Field cooling effect in permalloy. 2455.
- Nagata, Chikayoshi s. Fukui, Kenichi.* 626.
- , *T.* Intuitive description of the Chapman-Ferraro theory of the initial phase of a magnetic storm. 885.
- and *Abe, S.* Distribution of SC⁻ in high latitudes. 1087.
- , *Akimoto, S. and Uyeda, S.* Selfreversal of thermoremanent magnetism of igneous rocks. III. 2570.
- , —, — *Momose, K. and Asami, E.* Reverse magnetization of rocks and its connection with the geomagnetic field. 2240.
- , *s. Ogi, T.* 1086.
- , *Takesi and Ōno, Hironori.* Development of S_p-field with storm-time. 2570.
- , *Fukushima, Naoshi and Sugiura, Masahisa.* Electrodynamical behaviour of the ionosphere region viewed from geomagnetic variations. 2575.
- Nagel, E. s. Margolis, B.* 1553.
- , *Kurt.* Silberbromidelektrode als 1:2-fache Elektrode. 655.
- Nagle, D. E.* Scattering of 119-Mev pions by deuterium. 981.
- and *Hildebrand, R. H.* Observations on pion tracks in a liquid hydrogen bubble chamber. 1515.
- Nagy, L. s. Jánossy, L.* 2044.
- Nahmias, E.* Neutrino et formation de technétium dans certaines étoiles. 2362.
- *s. Yussa, T.* 2022.
- Nakai, S. s. Koba, Z.* 2355.
- , *Yoshio s. Uchida, Yoichi.* 2476.
- Nail, Nelson R., Moser, Frank, Goddard, Pliny E. and Urbach, Franz.* Optical absorption measurements on silver halide crystals. 1467.
- Naish, J. M. and Jones, F. G.* Direct measurement of intensity distributions in star images. 348.
- Naismith, R.* Chart for ionospheric forecasting in the British Zone. 1485.
- Nakagawa, Ichiro s. Mizushima, San-ichiro.* 996.
- , *S., Huzita, H. and Okudaira, K.* Unusual star. 1147.
- , *Yoshinari.* Inhibition of thermal convection by a magnetic field. 213.
- , *Y. s. Fultz, D.* 748.
- Nakahori, Takashi.* Exposure time in roentgenography with special reference to condenser discharge apparatus. 1906.
- Nakajima, Koichi and Sutoki, Tomiya.* Sub-boundaries in aluminium single crystals. 2069.
- Nakamoto, Kazuo, Kobayashi, Masahisa and Tsuchida, Ryutarō.* Polar solvent effects on the absorption spectra of metallic complexes. 2062.
- Nakamura, Hiroyuki and Kubota, Hiroshi.* Effects of errors of micoid disc in polanret microscope. 2521.
- , *Ken-ichi.* Effects of infrared irradiation on ZnCdS phosphors with copper activators. 1261.
- , *Effects of infrared on emission of ZnS : Cu phosphors.* 1261.
- , *Takashi s. Kotani, Masao.* 2271.
- , *Tutō.* Statistical theory of hindered rotation in molecular crystals. II. 1406.
- , *Statistical theory of hindered rotation in molecular crystals.* 2419.
- and *Taketa, Hiroshi.* Para- and antiferromagnetic states of cobalt fluoride. 815.

- Nakamura, Yoji* s. *Takaki, Hideo*. 1690.
 —, *Yutaka* s. *Nagashima, Tomio*. 2455.
Nakano, Huzio s. *Syozu, Iitiro*. 1422.
 —, *Tadao* and *Nishijima, Kazuhiko*. Charge independence for V-particles. 2352.
 —, *Yoshihiro*. Scattering of high-energy neutrons and Johnson-Teller type nuclei. 981.
Nakasima, Ryu-o, and *Kikuchi, Ken*. Cu(n; 2n) excitation function and the knock-out process in nuclear reactions. 2364.
Nalos, E. J. Measurement of circuit impedance of periodically loaded structures by frequency perturbation. 678.
Namara, A. G. and *Currie, B. W.* Radio echoes during aurora. 522.
Namba, Masaharu s. *Sato, Kinzo*. 1226.
Nambu, Y. and *Yamaguchi, Y.* Meson-nucleon scattering. 2396.
 —, *Yoichiro*. Structure of Green's functions in quantum field theory. II. 2267.
Namikawa, Tomikazu s. *Sato, Teruo*. 2247.
Namiki, Mikio and *Horiuchi, Kazuo*. Transient phenomena in the wave guide. 2510.
 — and *Mugibayashi, Nobumichi*. Radiation damping and decay of an excited state. 2266.
 — s. *Mugibayashi, Nobumichi*. 1295.
Nandy, K. P. Graphical method for rapid estimation of the thickness of evaporated metal films. 116.
Napier, P. G. s. *Goring, D. A. I.* 159.
Naqvi, Ali M. and *Talwar, S. P.* Energy levels of PXII. 2048.
 — and *Tandon, J. N.* Identification of radio stars. 1908.
Narasimhan, P. T. Temperature dependence of the dielectric constant of ionic crystals. 2170.
 —, *V. s. Parthasarathy, S.* 1108, 1737, 2171, 2305, 2306.
Narath, Albert et *Schimmel, Gerhard*. Etude de la diffusion de la lumière dans les émulsions photographiques en fonction de l'épaisseur de la couche et de la longueur d'onde. 2534.
Náray, ZS. Determination of cathode sensitivity distribution of photomultipliers. 2188.
Narayanamurti, D. Rheology of adhesives and wood. 2218.
Narita, Shin-ichiro. Relationship between thermionic emission and electrical conductivity of oxide-coated cathodes. 300.
 — Interpretation of Nijboer theory for BaO from the view-point of co-existence of various impurity levels. 2476.
Narsimhan, G. Unstability of self-excited systems. 1502.
Narumi, H. Problem of energy eigenvalue and degeneracy in quantum mechanics. 718.
Nastuk, W. L. s. *Alexander, J. T.* 2221.
Nataf, Roger. Désintégration β et structure nucléaire. Interaction nucléon-leptons, règles de sélection et modèle en couches. 242.
Nathans, R. s. *Halpern, J.* 405.
Naudé, S. M. and *Hugo, T. J.* Emission spectrum of AlF in the region 1700 bis 2000 Å. 2061.
Naugle, J. E., *Freier, P. S.* and *Ney, E. P.* Energy spectrum of medium and heavy primaries at $\lambda = 61^\circ$. 1389.
 —, *Ney, E. P.*, *Freier, P. S.* and *Cheston, W. B.* Interaction of a negative heavy meson. 395.
Naumann, A. pH-Meßgerät. 2153.
 —, *G. s. Kossel, W.* 825.
 —, *H. G.* Autokollimatoren und ihre Anwendung in der Meßtechnik. 1458.
 —, *R. A.* and *Gerhart, J. B.* 5.6-second $\text{Ir}^{191\text{m}}$ following Os^{191} decay. 69.
 — s. *Tomlinson, E. P.* 1159.
Nati, Giuseppe s. *Odeblad, Erik*. 1076.
Nawata, Shigenori. Lamellar reflectivity and phase shift for multiple reflections. 2530.
Naya, Shigeo s. *Kanô, Kenzi*. 2457.
Nazarek, A. s. *Stergis, C. G.* 711.
Neal, B. G. Behaviour of framed structures under repeated loading. 919.
Nedzel, V. A. s. *Marshall, J.* 1377.
Need, John L. Mechanism of the reaction $\text{C}^{12} + \text{p} \rightarrow \text{p} + 3\alpha$ at 29 Mev. 1771.
Néel, L. Permalloy. 694.
 — Loi en $\text{T}^{3/2}$ de l'approche à la saturation des substances ferromagnétiques. 815.
 — Ferrimagnétisme et ses développements récents. 2456.
 —, *Louis* et *Benoit, René*. Propriétés magnétiques de certains bisulfures. 2463.
Neff, Hans. Röntgenanlage mit Zählrohbetrieb für die Analyse von Kristallen und chemischen Verbindungen. 1896.

- Neff, Joseph A. and Hickman, James B.*
Total pressure over certain binary liquid mixtures. 2322.
- Negaard, B. J. s. Meinel, A. B.* 523.
- Neganov, B. S. s. Mešerjakov, M. G.* 2035.
- Negishi, Katsuo s. Torikai, Yasuo.* 2306.
- Nehemias, J. V. s. Gomberg, H. J.* 875, 1278.
- , *J. V. s. Meinke, W. W.* 2024.
- Neher, H. V.* Charge with time of low-energy part of the cosmic-ray spectrum. 1606.
- and *Johnston, Alan R.* Techniques useful in evacuating and pressurizing metal chambers. 905.
- , *R. s. Kahnt, F. W.* 873.
- Nehrkorn, O.* Anschauungsunterricht der Physik und Röntgenphysik im Rahmen einer Fachschule für medizinisch-technische Assistentinnen. 2258.
- Neidhardt, P.* Korrelation, Redundanz und Rauschen im Fernsehsignal. Nachrichten-theoretische Betrachtung über die Grundlagen einer qualitativen Verbesserungsmöglichkeit der Fernschübertragung. 2514.
- Neill, H. W. s. Drost-Hansen, W.* 1828.
- , *T. R.* Plasma-electron oscillations. 2165.
- Neilson, G. C. s. Sample, J. T.* 932.
- Neiman, M. B.* Radioaktive Isotope in der Meßtechnik. 2344.
- Nelder, J. A. s. Hammersley, J. M.* 184.
- Nelkowski, H. s. Krebs, K.* 1417.
- Nelms, Ann T. and Oppenheim, Irwin.*
Atomic form factor: Computation and survey. 2048.
- Nelson, C. N. s. Sorem, A. L.* 498, 2201.
- , *E. B., Geer, E. H. and Carlson, R. R.*
Scintillation counter study of gamma rays from proton capture in sodium. 1163.
- , *Lawrence, W. and Carlson, R. R.*
Gamma rays from proton capture in Li^7 and F^{19} . 64.
- *s. Bashkin, S.* 1362, 1551.
- *s. Geer, E. H.* 965, 1575.
- , *J. R., Siegfried, J. G. and Hartman, P. L.*
Absorption of alkali-halides in the far ultra-violet. 1826.
- , *J. T. and Ellickson, R. T.*
Scintillation counter for detection of X-rays. 1979.
- , *K.* Method of preparing laminated copper. 761.
- , *L. C. s. Hudgens, J. E.* 1982.
- Nelson, R. C.* Organic photoconductors. I. Kinetics of photoconductivity in rhoda mine B. II. Crystal violet. III. Kinetics of basic fuchsin. 1654.
- Preparation of photoconductive films of cadmium sulfide. 2134.
- Sensitization of photoconductivity in cadmium sulfide. 2134.
- Photoconductivity of some cyanine dyes. 2135.
- , *R. H. s. Walker, J. K.* 1516.
- , *Richard D. s. Lippincott, Ellis R.* 433.
- Nenitzesco, Costin D., Avram, Mlle Marguerite et Shiam, Mlle Elvire.* Isomérisation catalytique des hydrocarbures saturés. Mécanisme de l'activation du chlorure d'aluminium par l'eau. 551.
- Nenning, Peter.* Kurzzeitmesser mit Taktfrequenzen bis 4 MHz. 1301.
- Nentwig, Kurt.* Foto-Transistor. 1040.
- Nervik, Walter E. and Seaborg, Glenn T.*
Tantalum spallation and fission induced by 340-Mev protons. 56.
- , — Tantalum spallation and fission induced by 340-Mev protons. 577.
- Nesbet, R. K.* Configuration interaction in orbitaltheories. 723.
- Excited electronic states of 1,3-butadiene. 1623.
- Nester, W. H. s. Cork, J. M.* 60.
- Neth, A.* Zerstörungsfreie Werkstoffprüfung. 331.
- Nethercot, A. H. jr. s. Rosenblum, B.* 786.
- Netter, F. s. Jacrot, B.* 234.
- Neu, W.* Frequenzweiche für Mikrowellen. Mitt. aus dem Institut für Hochfrequenztechnik an der Eidg. Hochschule in Zürich. Berichtigung. 2178.
- Neuber, H.* Gesetzmäßigkeiten von Torsionsschwingungszahlen und Aufstellung einfacher Grenzwertformeln. 919.
- Neuburg, H. A. C., Soberman, R. K., Svetnick, M. J. and Korff, S. A.*
High-altitude cosmic-ray neutron density at the geomagnetic pole. 427.
- Neudert, W., Röpke, H. and Reitstötter, J.*
Einfluß der Oberflächenbeschaffenheit fester Materialien auf die Ausbildung des Randwinkels an den Grenzflächen fest/flüssig (Benetzungszahl und Bearbeitungszahl). 2445.
- Neuert, H. and Gutbier, H.* Zählrohre mit Methylenthalogenen als Dampfzusatz. 1975.
- *s. Dähnck, W.* 934.
- *s. Rosenbaum, O.* 440.

- Neuert H. s. Steffen, K. G. 1793.
- Neufeld, J. s. Snyder, W. S. 985, 2042.
- , Jacob. Electron capture and loss by moving ions in dense media. 82.
- and Ritchie, R. H. Passage of charged particles through plasma. 1443.
- , — Density effect in ionization energy loss of charged particles. 1584.
- Neugebauer, H. Netzschutz und Relais. 1490.
- , Th. Übergang zwischen homöopolarer und Ionenbindung. 2053.
- Neuhaus, H. s. Hulthén, E. 313.
- Neuman, Maurice. Radiation of a high energy electron in a constant magnetic field. 1170.
- s. Lepore, Joseph V. 949.
- Neumann, B. und Schmid, E. Effekte von Korpuskularbestrahlung an aushärtbaren Legierungen. 776.
- , G. Ergebnisse der 7. Forschungsfahrt der „Carnegie“ für die Ozeanographie des Pazifischen Ozeans. 2578.
- , Gerhard. Stabilitätsschwingungen und die innere thermische Unruhe im Meer und in der Atmosphäre. 2579.
- Entstehung der Wasserwellen durch Wind. 2579.
- Komplexe Natur des Seegangs. 1. Seegangsbeobachtungen im Nordatlantischen Ozean, in der Karibischen See und im Golf von Mexico (M.S. „Heidelberg“, Oktober 1950—Februar 1951). 2. Anwassen der Wellen unter dem Einfluß des Windes. 2579.
- Temperaturanomalien an der Meeresoberfläche und ihre Beziehungen zur atmosphärischen Zirkulation. 2581.
- Gibt es eine kritische Windgeschwindigkeit für die Grenzfläche Wasser-Luft? 2581.
- John von. Entwicklung und Ausnutzung neuerer mathematischer Maschinen. 1492.
- s. Goldstine, Herman H. 2294.
- Neumark, Gertrude. Influence of an electric field on the thermoluminescence of ZnS crystals. 1890.
- Neurath, P. W. Magnetostriction and domain structure of materials for use in lownoise equipment. 2546.
- Neuringer, L. J. Effect of pressure on the absorption edges of tellurium. 2473.
- Neuroth, N. Bestimmung der optischen Konstanten n , x aus Reflexionsmessungen. 1062.
- Neuwirth, Robert. Einfluß der elektrischen Ladung auf die Kondensationsvorgänge in der Atmosphäre. 1703.
- Neuzil, Eugène et Jensen, Raymond. Coacervation des polymères hydro-solubles non ioniques. 2436.
- Neville, H. H. Non-sticking float-valve for vacuum systems. 724.
- , O. Kenton s. Ropp, Gus A. 1750.
- Nevin, T. E. and Stephens, D. V. Observations on the band spectra of MnH and MnD. 2412.
- s. Anderson, F. 562, 937.
- s. Davies, J. H. 763.
- Newbery, S. P. s. Emmerson, B. W. 1478.
- Newberry, Sterling P. X-ray microscope operation and inherent properties. 1684.
- s. Norton, James F. 1684.
- Newcomb, W. A. Magnetohydrodynamic waves in an ionized plasma. 1945.
- and Salpeter, E. E. Mass corrections to the hyperfine structure in hydrogen. 1807.
- Newell, Homer E. jr. Rocket data on atmospheric pressure, temperature, density and winds. 1287.
- , J. A. and Wilks, J. Absorption of sound in liquid helium below 1° K. 2427.
- , Robert R. and Henny, George C. Inferential kilovoltmeter. Measuring X-ray kilovoltage by absorption in two filters. 1275.
- Newhall, Sidney M. s. Burnham, Robert W. 2225.
- Newhouse, V. L. Magnetic and ferro-electric computing components. 186.
- Newitt, D. M. s. Blanchard, D. C. 206.
- Newman, D. P. s. Sachs, G. 332.
- , E. s. Cohen, B. L. 1540, 1540, 1770.
- , Ezra and Bergmann, Peter G. Lagrangians linear in the velocities. 1711.
- , P. C. Plastic flow in coal. 695.
- s. Millard, D. J. 373.
- , R. and Tylor, W. W. Properties of germanium doped with iron. II. Photoconductivity. 822.
- , Woodbury, H. H. and Tyler, W. W. Photoconductivity in manganese-doped germanium. 2123.
- s. Dash, W. C. 2121.
- s. Tyler, W. W. 2472.
- , Roger. Visible light from a silicon p-n junction. 1651.

- Newmann, D. P. Optical studies of injected carriers. III. Infrared absorption in germanium at low temperatures. 2119.
- , R. C. Lattice spacings of thin electro-deposits of cobalt and nickel on a copper single crystal. 1841.
- and Pashley, D. W. Sensitivity of electron diffraction as a means of detecting thin surface films. I. 457.
- s. Kehoe, R. B. 808.
- Newson, H. W. Li(p, n) reaction near threshold. 1542.
- s. Block, R. C. 1362.
- s. Marshak, H. 1362.
- s. Nichols, P. F. 1555.
- s. Patterson, J. R. 1561.
- s. Toller, L. A. 1554, 1562.
- Newstein, M. C. Variational treatment of elastic scattering of electrons from hydrogen. 1393.
- Newton, C. M. s. Panofsky, W. K. H. 1341.
- , H. W. and Milsom, A. S. Distribution of great and small geomagnetic storms in the sunspot cycle. 519.
- , Roger G. Radiative corrections to electron scattering. 607.
- Radiative corrections to electron scattering. 984.
- and Jost, Res. Construction of non-central potentials from the S-matrix. 1165.
- s. Reifman, Alfred. 1930.
- Ney, E. P. s. Naugle, J. E. 395, 1389.
- Niblett, D. H. and Wilks, J. Internal friction of cold worked copper at low temperatures. 2282.
- , G. B. F. s. Bowman, J. E. 1309.
- Nicholas, J. F. s. Frank, F. C. 260.
- Nicholls, G. D. Mineralogy of rock magnetism. 178.
- , R. W. Intensities in molecular spectra. 101.
- and Jarmain, W. R. Average internuclear separations arising in the study of molecular band-systems. 431.
- , γ -centroids: average internuclear separations associated with molecular bands. 1622.
- s. Brannen, Eric. 156, 1809.
- s. Jarmain, W. R. 256.
- s. Marr, G. V. 1116.
- s. Wallace, L. V. 1819.
- Nichols, P. F., Smith, R. G. and Newson, H. W. Total neutron cross sections in the kilovolt region: Zr⁹⁰, Zr⁹² and Zr⁹⁴. 1555.
- Nichols, Peter L. jr. and Presson, Arthur G. Heat conduction in an infinite cylindrical medium with heat generated by a chemical reaction. 2310.
- Nicholson, A. J. C. Stability of the acetyl radical. 2414.
- , K. P. Time delays in boron trifluoride proportional counters. 2338.
- , M. M. Diffusion currents at cylindrical electrodes. Organic sulfides. 2156.
- , T. s. Ferlazzo, G. 2229.
- , William Q. and Ross, Irving. Kerrcell shutter has submicrosecond speed. 2196.
- Nicklas, James P. Isotope shift in neutral carbon. 96.
- Nickson, A. F. B., Muncey, R. W. and Dubout, P. Acceptability of artificial echoes with reverberant speech and music. 2305.
- Niclaue, Michel. Mécanisme d'oxydation thermique lente des substances organiques en phase gazeuse. 751.
- s. Debais, Louis. 846.
- s. Fillet, Pierre. 1888.
- Nicol, W. M. s. Haar, D. ter. 1925.
- Nicola, Marina de. Azione dei raggi X sul metabolismo degli acidi nucleici in cellule proliferative e cellule secretrici. 705.
- Nicolet, M. Aeronomic problem of nitrogen oxides. 1916.
- s. Baldinger, E. 1248.
- , Marcel. Nitrogen oxides and the airglow. 2570.
- Nicoll, F. H. and Kazan, B. Observation of electroluminescence excited by dc fields in cathode-ray tubes. 1688.
- , — Large area highcurrent photoconductive cells using cadmium sulfide powder. 2134.
- Niday, James B. Half-life of Rb⁸⁶. 579.
- Niebergall, W. Beitrag zur Geschichte der Absorptions-Kälteanlagen. II. Entwicklung seit dem ersten Weltkrieg. 2275.
- Geschichte der Absorptions-Kälteanlagen. II. 2275.
- Nieciecki, L. v. s. Dickel, G. 924.
- Nieder, E. Meßgerät für kleine Kapazitäten. 1207.
- Niehrs, H. and Wagner, E. H. Amplituden der Wellenfelder bei Elektroneninterferenzen im Laue-Fall. 1003.

- Niehrs, H. s. Molière, K. 1002.
- Niekisch, E. A. Wechsellichtmessungen an photoleitendem CdS als Methode zur Bestimmung von Beweglichkeit und Haftstellenverteilung. I. II. 291.
- Nielsen, A. s. Kofoed-Hansen, C. 2022.
- , A. H. s. Herndon, John A. 623.
- s. Smith, D. F. 623.
- , Alvin H. s. Keller, Fred L. 623.
- , Edward and Weinstein, Alfred. Technique for the production of thin sulfur films. 115.
- , John P. Secondary recrystallization analogy in a heterogeneous liquid system. 110.
- , J. Rud s. Ferguson, E. E. 432.
- , S. s. Laxson, W. D. 290.
- Niemeck, F. s. Gobrecht, H. 135.
- Nier, Alfred O. s. Higatsberger, Michael J. 484.
- , A. O. s. Quisenberry, K. S. 1139.
- s. Scolman, T. T. 1139.
- Nierenberg, W. A. s. Hobson, J. P. 1348, 1803.
- s. Hubbs, J. C. 1348.
- Nierhaus, R. s. Daniel, H. 1367.
- Niermann, H. s. Hanle, W. 2208.
- Niessen, K. F. Condition for resonance in a nearly compensated ferrimagnetic. 2103.
- Spontaneous magnetization as a function of temperature for mixed crystals of ferrites with several Curie temperatures. 2455.
- Niestlie, John W. jr. and Berman, Arthur I. Neutron velocity distribution in an infinite scattering medium with finite absorption. 1594.
- Nigam, B. P. and Foldy, L. L. Space inversion and charge conjugation for fermion fields. 365.
- and Noyes, H. P. Quasi-bound states of the pion-nucleon system in the lowest Tamm-Dancoff approximation. 1334.
- , Swami Dayal s. Rao, Ramachandra Subba. 1106.
- Nigama, U. S. Fragmentation of glass plates. 1503.
- Niggli, Alfred. Eigensymmetrien von Tensoren. 895.
- , E., Overweel, C. J. and Vlerk, I. M. van der. X-ray crystallographical application of the fluorine-dating method of fossil bones. 874.
- Nihoul, J. s. Ifferbeek, A. van. 2336.
- Niimi, Tatsuya. Temperature dependence of the capacity of the copper oxide rectifier. 1228.
- Changes in contact potential difference of a germanium rectifier during the electrical forming. 2136.
- Niini, Aarno. Van der Waals' forces in liquids. Measurements of vapor pressures and calculating of vaporisation energy and London-forces in mixtures of nonpolar liquids. 2318.
- Niira, Kazuo. Abnormal rotation of OH radicals. 2407.
- $\sigma\pi$ interaction in benzene. 2407.
- and Oohata, Kiyoshi. Electronic energies of the CH_2 radical. 2412.
- Nijgh, G. J., Ornstein, L. Th. M. and Grobber, Niels. L/(M + N) conversion ratio of the 80 keV gamma transition in ^{131}Xe . 242.
- s. Nussbaum, R. H. 1573, 1781, 1782.
- s. Wapstra, A. H. 1782.
- Nijland, L. M. Electrical properties of hexagonal selenium. 2119.
- Nikiforuk, P. N. Technique for non-linear function generation. 1669.
- s. West, John C. 1501.
- Nikitine, S. Spectres d'excitons dans les cristaux. 630.
- Spectres d'absorption du corps solide. 2071.
- et Komoss, S. G. el. Comparaison de la théorie du modèle métallique de colorants polyméthines avec les données expérimentales. II. Étude des moments de transition et de l'intensité des bandes électroniques d'absorption. 2063.
- , Couture, L., Perny, G. et Sieskind, M. Spectres de divers semi-conducteurs. 1223.
- , —, Sieskind, M. et Perny, G. Séries de raies de formation de l'exciton dans Cu_2O . 2072.
- Niklas, L. und Lauterjung, K. H. Maximalenergie der Neutronen vom Eingang negativer μ -Mesonen in Eisenkerne. 395.
- , W. F. Ionenfallennagnet. 814.
- Negative Ionenkomponente des Elektronenstrahles in Kathodenstrahlröhren, insbesondere Fernschbildröhren. 2187.
- Nikolic, M. s. Deutsch, S. 165.
- Nikolski, S. I. s. Dobrotin, N. A. 988.

- Nilberg, R. H.* American wind turbine. 1506.
- Nilsson, Gosta and Aniansson, Gunnar.* Proportional flow counter with high-humidity gas. 223.
- , *N. E. Lennart s. Lagerqvist, A.* 2053.
- , *S. G. s. Mottelson, B. R.* 60, 1764.
- , *Sven Gösta.* Binding states of individual nucleons in strongly deformed nuclei. 1138.
- Nimeroff, I.* Two-parameter gloss method. 158.
- , *Isadore and Wilson, Samuel W.* Colorimeter for pyrotechnic smokes. 860.
- , — Colorimeter for pyrotechnic smokes. 2527.
- Nimura, Hiroshi.* Anomalous lattice spacings caused by stacking disorder. 1417.
- Nio, Liem Djan s. Leeden, P. van der.* 2295.
- Nisbet, A.* Hertzian electromagnetic potentials and associated gauge transformations. 280.
- , *W.* Instrument for measuring respiratory rates and volumes. 1902.
- Nisenoff, M. s. Schulz-DuBois, E.* 2125.
- Nishijima, Kazuhiko.* Many-body problem in quantum field theory. I. III. 1715.
- *s. Fujimoto, Yoichi.* 1388.
- *s. Nakano, Tadao.* 2352.
- Nishikawa, Kiyoshi s. Tokunaga, Senzo.* 1136.
- , *Tetsuji and Shimoda, Koichi.* Lines of the inversion spectrum of ammonia. 2411.
- *s. Kojima, Takeshi.* 1189.
- *s. Shimoda, Koichi.* 101, 2410.
- Nishikori, Kiyoshi s. Fukushima, Madoka.* 2509.
- Nishimura, Genrokuro and Jimbo, Yasuo.* Dynamical problem of stress concentration. Stresses in the vicinity of a spherical matter included in an elastic solid under dynamical force. 1305.
- *Suzuki, Masazi, Furukawa, Eiichi. Kotaki, Tomio and Takahashi, Koichi.* New-designed prospecting apparatus. 2584.
- *J.* Analysis of sudden increase of cosmic ray associated with solar flare. 2398.
- *J. s. Minakawa, O.* 954.
- *Kazuaki s. Kageyama, Seizaburo.* 1170, 2394.
- Nishino, Minoru s. Yamaguti, Tasaburô.* 2542.
- Nishiyama, T.* Notion of the thermodynamic pressure. 219.
- Interaction of the lattice vibrations with the conduction electrons. 2420.
- Nisonoff, Alfred, Kuhn, Lester P. and Gurney, Ronald W.* Proton transfers in solution. 1964.
- Nissan, Alfred H.* Molecular approach to the problem of viscoelasticity. 638.
- Nissen, W. s. Lochte-Holtgreven, W.* 1613.
- Nitzsche, K. s. Eckardt, A.* 1261.
- Niu, Kiyosi.* Unstable heavy meson decaying in flight in the photographic emulsion exposed at high altitudes. 1136.
- Nixon, W. C.* High-resolution X-ray projection microscopy. 689.
- Applications of the magnetic lens X-ray microscope. 1686.
- Resolution with the X-ray projection microscope. 1887.
- Njegovan, V. N.* Thermodynamik metastabiler Systeme. 2313.
- Nobbs, J. McK. and Beale, P. T.* Use of intensity scales in the microphotometry of spectra. 1462.
- Nobel, D. de s. Kröger, F. A.* 475.
- Nobis, R. A. s. Beyster, J. R.* 1381.
- Noble, L. M. and Steffen, R. M.* Directional correlation of the Cd^{111} gamma-gamma correlation with gaseous In^{111} sources. 1164.
- , *R. H.* Recording spectrometer for the infrared. 1678.
- Nobles, R. A., Henkel, R. L. and Smith, R. K.* Neutron induced fission excitation curve for Am^{241} . 1776.
- *s. Beyster, J. R.* 605.
- Nocilla, Silvio.* Classe di soluzioni singolari della equazione di Tomotika e Tamada per lo studio dei moti transonici. 1731.
- Noddack, W., Wrabetz, K. und Herbst, W.* Elektrochemische Spannungsreihe der Sulfide. 658.
- *s. Piontelli, R.* 1440.
- Nodvik, John s. Melkanoff, Michel A.* 1797, 2389.
- Nodrick, John S. and Saxon, David S.* Suppression of coherent radiation by electrons in a synchrotron. 41.
- Nodwell, R. A. and Crooker, A. M.* Spectra of indium. 620.

- Nødtvedt, H.* Analysis of magnetostrictive transducers. 2306.
- Noeggerath, W.* Enthalpy-temperature-entropy diagram for ideal gases and gas mixtures up to 5000 K. 2308.
- Nöldeke, G.* Isotopieverschiebung im Nd II-Spektrum. 1184.
- Noga, Kin-ichi and Kawamura, Shoji.* External photoelectric emission of barium oxide. 2500.
- Nolle, A. W.* Nuclear magnetic resonance relaxation times for polyisobutylene in carbon tetrachloride solution. 1413.
- Noltingk, B. E.* History of electrical devices for measuring strains and small movements. 1290.
- and *Snelling, M. A.* Electronic temperature controller. 1937.
- Nomarski, G. et Weill, A. R.* Application à la métallographie des méthodes interférentielles à deux ondes polarisées. 865.
- Nomoto, Otohiko.* Molecular sound velocity and molecular compressibility of liquid mixtures. 1734.
- Molecular sound velocity and molecular compressibility of liquid mixtures. 2301.
- , *Ikeda, Takuro and Kishimoto, Tadashi.* Dispersion of ultrasonic waves in ethylene. 2301.
- Otohiko, Nomoto s. Tadashi, Kishimoto* 1735.
- Nomura, Yûkichi and Takaku, Kôshun.* Propagation of the electromagnetic waves in an inhomogeneous atmosphere. 1449.
- , — Propagation of elastic waves in an isotropic homogeneous sphere. 2283.
- Nonaka, Itaru s. Ryu, Norio.* 2395.
- Nonaka, Kôzô and Kohra, Kazutake.* Crystallization process of polished layers of metals by electron diffraction and microscopy. 2087.
- Nonnenmacher, Walter s. Feldtkeller, Richard.* 2300.
- Noon, J. s. Kaplon, M. F.* 44.
- , *J. H. and Kaplon, M. F.* Interactions of the heavy nuclei of the cosmic radiation. 616.
- , — Fragmentation of heavy primary nuclei of the cosmic radiation into light elements. 987.
- Noon, J. H., Kaplon M. F. and Crussard, J.* Anomalous event observed in photographic emulsion. 56.
- , *J. H. s. Crussard, J.* 394.
- *s. Kaplon, M. F.* 987.
- Norberg, R. E. s. Lowe, I. J.* 1212.
- Nordling, Carl s. Brogren, Gösta.* 160.
- Nordmeyer, M.* Ausleuchtung von Spektrographen. 494.
- Norhagen, Ake and Odeblad, Erik.* Analysis of gas mixtures by means of beta ray transmission measurements. 932.
- Norinder, H. and Salka, O.* Determination of electric discharge fields with a special klydonograph. 118.
- , *Harald and Pucher, Walter.* Field intensities and charge densities in thunderclouds. 889.
- and *Siksna, Reinholds.* Electric charges measured in the air when blowing snow. 1702.
- Norman, R. J.* Proportional counter with grid control. 1974.
- Norris, K. P.* Method of controlling the temperature of a prism. 2193.
- , *V. J.* Frequency-multiplier klystron. 2517.
- Norrish, R. G. W. and Porter, G.* Chemical reactions produced by very high light intensities. 1068.
- *s. Christie, Margaret I.* 783.
- *s. Erhard, K. H. L.* 919.
- *s. Guillet, J. E.* 803.
- *s. Lipscomb, F. J.* 861.
- Northrop, D. C. and Simpson, O.* Photoeffects in condensed aromatic hydrocarbons. 652.
- Norton, Francis J.* Rare gas permeation through polymers. 2083.
- , *Gardner A. s. Goodman, Clark.* 2559.
- , *James F. and Newberry, Sterling P.* Specimen techniques for use with the X-ray shadow microscope. 1684.
- *K. A., Vogler, L. E., Mansfield, W. V. and Short, P. J.* Probability distribution of the amplitude of a constant vector plus a Rayleigh-distributed vector. 2261.
- Nosseck, R.* Bestimmung der mittleren freien Weglänge der Leitungselektronen in Kalium. 461.
- Nougaro, Jean s. Escande, Léopold* 1950.
- Noury, J.* Vitesse des ultrasons de 585 kHz dans le propane au voisinage de l'état critique. 1955.

- Noury, J. et Lacam, A. Vitesse des ultrasons dans le méthane sous pression. 921.
- , Jack s. Lacam, André. 377.
- Novey, T. B. Alpha-gamma directional correlation in Th^{228} . 592.
- Alpha-gamma directional correlation in Am^{241} . 1367.
- s. Freedman, M. S. 1370.
- s. Porter, F. T. 595, 1369.
- Novick, Robert, Lipworth, Edgar and Yergin, Paul F. Fine structure of singly ionized helium. 1611.
- , —, — Fine structure of singly ionized helium. 1805.
- Novobatzky, K. F. Bewegtes Dielektrikum. 1497.
- Nowacki, W. 62 allgemeine Auslöschungseinheiten. 1002.
- s. Huttenlocher, H. 1624.
- Nowick, A. S. s. Fischbach, D. B. 1241. 1863.
- s. Gordon, R. B. 1305.
- s. Li, Chi Yao. 1175.
- Nowotny, H. und Marquardt, W. Einfluß von Mn auf eutektische Aluminium-Silizium-Legierungen. 2545.
- Noyes, H. P. Effective range analysis of the pion-nucleon S-waves. 246.
- Effect of the failure of isotopic spin conservation on the pionnucleon S waves. 2002.
- s. Nigam, B. P. 1334.
- Richard M. Treatment of chemical kinetics with special applicability to diffusion controlled reactions. 1511.
- W. Albert jr. s. Coward, Nathan A. 1687.
- Nozawa, Masao s. Yamabe, Shotaro. 2392.
- Nozières, P. s. Baruch, P. 1216.
- Nudelman, Sol und Matossi, Frank. Effects of electric fields on ultraviolet excited ZnS-phosphors. 1264.
- s. Matossi, Frank. 1891.
- Nukasawa, Kenji. Contribution of the mutual perturbation of the localized molecular orbitals to the charge distribution. 2406.
- Nussbaum, Allen. Computation of the mobility ratio in pure p-type semiconductors. 1219.
- , R. H., Wapstra, A. H. and Verster, N. F. Decay of ^{67}Cu and the nuclear levels in ^{67}Zn . 2029.
- , Lieshout, R. van, Nijgh, G. J. and Ornstein, L. Th. M. Decay of ^{62}Zn . ^{62}Cu and ^{62}Co . 1782.
- Nussbaum, Allen, Wapstra, A. H. Nijgh, G. J., Ornstein, L. Th. M. and Verster, N. F. Evidence for a $(1f^{7/2})_{3/2}^3$ state in $^{49}\text{V}_{25}$. 1781.
- , Bruil, W. A., Sterk, M. J., Nijgh, G. J., and Grobhen, N. Decay of Co^{61} and Cu^{61} . 1573.
- , Lieshout, R. van, Wapstra, A. H., Verster, N. F., Haaf, F. E. L. ten, Nijgh, G. J. and Ornstein, L. Th. M. Nuclear levels in ^{60}Ni from the decay of ^{60}Cu . 1782.
- s. Sterk, M. J. 1575.
- , R. N., Lieshout, R. van and Wapstra, A. H. Low-lying many-particle levels in odd mass nuclides with 21, 23, 25 or 27 protons of neutrons. 581.
- Nussis, N. s. Ricci, E. 578.
- Nutting, G. C. s. Halwer, M. 159.
- Nyholm, Ronald S. s. Cable, Joe W. 1620.
- Nyquist, B. s. Bourghardt, S. 1273.

O

- Oakes, Francis. Analysis of the common-base transistor circuit. 294.
- Oakley, D. C. and Walker, R. L. Photo-production of neutral pions in hydrogen: magnetic analysis of recoil protons. 942.
- s. Walker, R. L. 941.
- Oakwood, T. S. s. Skull, E. R. 2059.
- Oatley, C. W. s. Ince, A. N. 693.
- Obashi, Masayoshi s. Sawada, Masao. 780. 1205, 1804.
- Obayashi, Tatsuzo. World-wide disturbance in F_2 -region. 2246.
- Oberdorfer, Günther. Maßsystemfrage im Lichte neuzeitlicher physikalischer und technischer Ansichten. 723.
- Maßsystemfrage in Physik und Technik. 1933.
- Oberhausen, Erich s. Roucayrol, Jean C. 2341.
- Oberlin, A. Mathieu-Sicaud. Applications du microscope électronique dans l'étude des milieux cristallisés. 166.
- A. s. Rinsky, A. 171.
- and Hocart, R. Epitaxies studies by electron microscopy and electron diffraction. 1889.
- Oberst, H. und Becker, G. W. unter Mitwirkung von Frankenfeld, K. Dämpfung der Biegeschwingungen dünner Bleche durch fest haftende Beläge. II. Fortschritte in der Entwicklung der Entdröhnungsmittel. 2304.

- Oberst, Hermann und Rieckmann, Paul. Meßverfahren der PTB bei der Bauartprüfung medizinischer Ultraschallgeräte. 2552.
- Obradović, N. M. Turbine ST 1950. 1506.
- O'Brien, Philip F. Interreflections in rooms by a network method. 163.
- , Stephen and Synge, J. L. Instability of the tippe-top explained by sliding friction. 2278.
- , V. s. Corrsin, S. 914.
- , W. V. Electrifying future. 2502.
- Occhialini, G. s. Bonetti, A. 930.
- s. Davies, J. H. 763.
- d'Occhieppo, Konradin Ferrari. Leuchtkraftfunktion und Heß-Diagramm im Bereich der Weißen Zwerg-Sterne. 1483.
- O'Ceallaigh, C. s. Davies, J. H. 763.
- s. Menom, M. G. K. 2341.
- Ochsenfeld, R. Dämpfung von Eisen-Nickel Legierungen. 1424.
- Magneto-elastische Eigenschaften einiger ferromagnetischer Eisen-Nickel Legierungen. 1424.
- Ockerman, John B. and Daniels, Farrington. α -radioactivity of some rocks and common materials. 1699.
- O'Connor, F. J. Solar eclipses visible in Ireland between A. D. 400 and A. D. 1000. 2232.
- , R. T. Haar, P. von der., DuPre, E. F. Brown, L. E. and Pominski, C. H. Infrared spectra of gossypol. 2410.
- Oda, M. s. Higashi, S. 1177, 1178.
- , A. s. Kohashi, Y. 2299.
- Odeblad, Erik. Approximate formulas describing transmission and absorption of beta rays. 1383.
- and Nati, Giuseppe. Detection of beryllium by means of the $\text{Be}^9(\alpha, n\gamma)\text{C}^{12}$ reaction. 1076.
- s. Åke, Norkagen. 932.
- Odian, A. s. Ritson, D. M. 1994.
- s. Weinstein, R. M. 1542.
- , Allen, Feld, Bernard, Rankin, William, Stein, Peter, Wattenberg, Albert and Weinstein, Roy. High-energy photon-neutron-proton pair ejection from nuclei. 1146.
- , A. C. Rankin, W. Stein, P. C. and Wattenberg, A. Neutrons in coincidence with photoprotons. 953.
- s. Feld, B. T. 398, 2016.
- O'Dwyer, J. J. s. Harper, P. G. 1011.
- Oehme, Reinhard. Scattering of polarized nucleon beams. 973.
- Dispersion relations for pion-nucleon scattering. I. Spin-flip amplitude. 2041.
- Dispersion relations for pion-nucleon scattering: no-spin-flip amplitude. 2395.
- s. Miyazawa, Hironari. 2001.
- Öhrn, Olov E. Influence of adsorption on capillary dimensions of viscometers. 2078.
- Oel, H. J. Elektrochemisches Verhalten schwerlöslicher Salze. 1042.
- und Strehlow, H. Elektrokapillarität der unpolarisierten Quecksilberelektrode. 1438.
- Oelsen, Olaf s. Oelsen, Willy. 865, 1315, 1740.
- , Willy und Oelsen, Olaf. Thermochemie des elementaren Schwefels. 1315.
- , und Thiel, Dieter. Präzisionsmessungen der Schmelzwärmen einiger Metalle. 1740.
- , Rieskamp, Karl Heinz und Oelsen, Olaf. Thermodynamische Analyse. II. Wärmehaltskurve eines Stoffes aus einem einzigen kalorimetrischen Versuch. 865.
- Öpik, E. J. Cosmic sources of deep-sea deposits. 2565.
- Oesterlin, W. Maximale Leistungsempfindlichkeit von Wheatstonschen Brücken in der Nullmethode. 812.
- Oetjen, R. A. s. Hansler, R. L. 431.
- s. Yoshinaga, Hiroshi. 1651, 2522.
- Oettel, Wolfgang. Entwicklung der Auflichtmikroskopie. 312.
- Ofer, S. s. Cohen, S. G. 1792.
- Offenhäuser, Werner s. Diehl, Jörg. 1101.
- Offerhaus, M. J. s. Cohen, E. G. D. 2336.
- Officer, C. V. and Eccles, P. J. Time coherence of associated cosmic ray particles. 1178.
- , Observations on the penetrating component of extensive air showers. 1389.
- Offner, Franklin F. Stable wide-range dc amplifier. 1671.
- Offord, A. C. and Weiss, Joseph. Chromatography with several solutes. 458.
- O'Friel, Z. and Weber, A. H. Internal conversion coefficient of Cr-51 . 1372.
- Ogawa, Masaru. Emission spectra of the β -, γ - and ϵ -systems of nitric oxide. 1818.

- Ogawa, Shiro and Watanabe, Denjiro. Electron diffraction study on the ordered alloy Au_3Cu . 2546.
- , — and Fujita, F. Eiichi. Structure of evaporated thin films of metals. 1205.
- s. Mizuno, Joji. 110.
- , Shizuko s. Kojima, Shoji. 2462.
- , Takuji s. Hibi, Tadatosi. 2069.
- , Toshio s. Shiio, Hazime. 2302.
- Ogg jr., Richard A. and Ray, James D. Nuclear spin quantum number of Si^{29} isotope. 1348.
- Ogi, Masamichi s. Soma, Junkichi. 2420.
- Ogilvie, John C. and Ryan, J. Eugene. Threshold sensitivity to light measured with an extraneous ultraviolet source in the visual field. 700.
- Ogilvy, K. W. Cosmic-ray proton spectrum at sea level. 616.
- Ogilvie, K. W. Cosmic-ray experiments with a proton velocity selector. 2399.
- Ogle, W. E. s. England, R. D. 935.
- Oguchi, Takehiko. Statistical theory of rotational phase transition. II. 2423.
- and Takagi, Yutaka. Statistical theory of rotational phase transition. I. 2423.
- Oguti, T. and Nagata, T. Model experiments of the screening effect of the ionosphere. 1086.
- Ohkawa, Tihiro. FFAG electron cyclotron. 1328.
- Ohki, Kosuke. Electronic theory of transition metal enzymes and catalysts. 1690.
- Ohkura, Hiroshi s. Kawamura, Hazimu. 2170.
- Ohl, G. s. Scheibe, A. 2272.
- s. Gebauer, Rudolf. 2050.
- Ohlberg, Stanley. Technique for imprinting scale of d spacings on powder films. 2415.
- , Stanley M. and Vaughan, Philip A. Crystal structure of selenium dithiocyanate. 2418.
- Ohloff, G. s. Schwabe, K. 140.
- Ohno, Kimio and Itoh, Takeshi. Modified atomic orbital method with its application to ethylene and oxygen. 1185 (5551).
- s. Takayanagi, Kazuo. 1745.
- Ohnuki, Yoshio s. Hara, Osamu. 1332, 2269.
- Ohnuma, Shoroku and Feldman, David. Phase shift analysis of nucleon-nucleon scattering at 150 Mev. 1167.
- Ohta, Tokio. Atom-exciton interaction. 2420.
- Light absorption in the insulating crystals. 2425.
- Ohtsuka, Taiichiro s. Taoka, Tadami. 337.
- Oka, Syoten. Method for measuring dynamic rigidities and viscosities of a visco-elastic material. V. Free oscillation method. 1307.
- and Takami, Akira. Method for measuring dynamic rigidities and viscosities of a visco-elastic material. VI. Exakt theory for an oscillating hemispherical plastometer. 1307.
- , Yoshinaga and Kanno, Takuji. Spectrophotometric study on the determination of germanium. 1936.
- Okabayashi, Takao. Bound state problem. 1714.
- Fundamental equation for the nucleon. 2270.
- Okamura, Toshihiko, Kojima, Hiroshi and Watanabe, Seiichiro. Oxide magnets. I. Effects of Bi_2O_3 on barium ferrites. II. Effects of Bi_2O_3 on strontium and lead ferrites. 2455.
- Okano, Jun. Electron emission from Mo by ion bombardment. 2500.
- Okaya, Y. s. Saito, Y. 2063.
- Okayama, Taisuke. Distribution function of degenerating ensemble. 2334.
- Okazaki, A., Becker, R. L. and Barschall, H. H. Scattering of polarized neutrons from heavy nuclei. 86.
- s. Darden, S. E. 1361.
- , Albert. Scattering of polarized neutrons by heavy nuclei. 1593.
- , Chisato s. Kubota, Buichi. 2454.
- O'Kelley, G. D., Lazar, N. H. and Eichler, E. Decay chain $\text{Ca}^{49}\text{-Se}^{49}\text{-Ti}^{49}$. 2023.
- s. Lazar, N. H. 1572.
- Okkes, R. s. Gerritsen, H. J. 2108.
- Okonogi, Hisaichiro s. Hara, Osamu. 2268.
- Okubo, S. and Marshak, R. Difference in lifetimes of Θ^0 and Θ^- mesons. 1758.
- s. Regge, T. 1753.
- Okudaira, K. s. Nakagawa, S. 1147.
- Okuyama, Masataka. Ultraschallabbau langkettiger Moleküle und der Mechanismus der Kavitation. II. 111.
- Olbert, S. Diffusion equation of nucleonic component of cosmic rays. 428.
- , Stanislaw. Production spectra of cosmic-ray mesons in the atmosphere. 398.
- Oldenberg, Otto. Theodore Lyman \dagger . 357.

- Oldfield, A. s. Shirley, H. T. 2212.
 Oleksa, S. s. Muehlhause, C. O. 1778.
 Oleson, Norman s. Watanabe, Satosi. 1235.
 —, N. L. Instantaneous probe measurements of traveling striations in an argon glow discharge. 1047.
 Oliphant, M. L. Acceleration of protons to energies above 10 GeV. 1987.
 Oliva, J. et Aguilar, M. Distribution des unités sensorielles dans l'extrafovea. 2225.
 —, — Zones de sommation partielle. 2554.
 — s. Aguilar, M. 172, 341, 2554.
 Olivé, S. s. Schulz, G. V. 1834.
 Oliver, A. R. s. Blau, M. 2013.
 —, D. J. s. Hilsun, C. 1432.
 Olkowsky, J. s. Laboulaye, H. de. 2018.
 Olmer, P. Défauts cristallins et diffusion des rayons X. 2070.
 Olmstead, J. s. Johnson, E. O. 1676.
 Olness, J. W. and Lewis, H. W. Gamma rays from protons on P^{31} . 1371.
 Olsen, Haakon. Outgoing and ingoing waves in final states and bremsstrahlung. 1172.
 — Identity in Laguerre polynomials and the related Hankel transform. 1491.
 —, H. L. and Gayhart, E. L. Incipient flame propagation in a turbulent stream. 1966.
 —, J. L. s. Allen, W. D. 2113.
 Oslén-Baer, J. L. s. Croft, A. J. 284.
 Olson, E. L. s. Handley, T. H. 955.
 —, O. L. and Gifford, J. F. Inexpensive decontamination units. 762.
 Olthuis, J. M. and Seur, C. J. Film scanner with the image iconoscope. 2184.
 Oltmann, Geerd. Weiterentwicklung einer Ultrazentrifuge. 1935.
 Oliver, F. W. J. Asymptotic solution of linear differential equations of the second order in a domain containing one transition point. 1708.
 Omholt, A. Auroral E-layer ionization and the auroral luminosity. 1912.
 — Recombination coefficient in the E-layer during aurorae. 2571.
 — and Harang, L. Measurements of the mean lifetime of the metastable ^{18}S -state of the oxygen atom in the upper atmosphere during auroral displays. 2242.
 Omura, I., Baba, H. and Higasi, K. Ionization potentials of some conjugated molecules. 1187.
 Onai, Yoshio s. Kageyama, Seizaburo. 1170.
 Onaka, Ryumyo. Excitation spectra of silver activated alkali halide phosphors. 1892.
 Oneda, S. Theory of V-particles and mesons. 2352.
 — V-particles and nuclear phenomena. 2352.
 — s. Umezawa, H. 1094.
 O'Neill, H. s. Williams, E. W. 2541.
 Ōno, Hironori s. Fukushima, Naoshi. 2570.
 — s. Nagata, Takeso. 2570.
 —, Kazuo. Paramagnetic resonance in the nickel sulphate heptahydrate. 2462.
 — and Hayashi, Izuo. Paramagnetic resonance absorption of Mn^{++} impurity in salts of Ni^{++} , Co^{++} and Fe^{++} and spin-lattice relaxation. 2462.
 — s. Hayashi, Izuo. 2462.
 — s. Kumagai, Hiroo. 2460.
 —, Ken-ichi. Theory of V-particles. 1332.
 — and Yokoi, Kei. Fermi's theory of multiple production. 1758.
 —, S. Statistical thermodynamics of solutions of electrolytes and non-electrolytes. 2322.
 Ono, Yôrô. Constants of motion for the case of non-localized interactions. 2266.
 Onoe, Morio. Network transformations concerning Jaumann networks. 1670.
 Onsager, Lars 2255.
 Onuki, Masami s. Kawamura, Hazimu. 24, 2498.
 Oohata, Kiyoshi s. Niira, Kazuo. 2412.
 Ookawa, A. s. Fukushima, E. 2425.
 Oort, J. H. Moderne Untersuchungen über die Struktur der Milchstraße. 351.
 Oosawa, Fumio and Asakura, Sho. Surface tension of high-polymer solutions. 1200.
 — s. Asakura, Sho. 1200.
 Ooshika, Y. s. Oshida, I. 2409, 2410.
 Oosterkamp, W. J. Considerations regarding the dosimetry of *roentgen* and gamma radiation. 343.
 — s. Thoraeus, R. 1693.
 Opetchowski, W. s. Hess, F. G. 596.
 Opitz, H. Außenrundscheifen. 2549.
 —, W. s. Siegel, R. T. 604.

- Opitz, Wolfgang. Supraleitung und Widerstand dünner Indiumschichten mit Gitterstörungen und Fremdmetallzusätzen. 126.
- Oppenheim, A. K. and Huzhes, R. R. Fluid dynamics. 736.
- , Irwin s. Friedman, Abraham S. 367.
- s. Nelms, Ann T. 2048.
- , U. s. Jaffe, J. H. 2527.
- , Uri and Jaffe, Joseph H. Resistivity of thin silver films. 2092.
- Oppenheimer, Robert. Ausblicke auf Kunst und Wissenschaft. 540.
- 2255.
- d'Or, L. Structure électronique des métaux et catalyse hétérogène. 216.
- Orchard, H. J. Transformation for constant-impedance networks. 1879.
- Ore, A. s. Skoglund, A. 1072.
- Orear, J. s. Harris, G. 1992, 2353.
- s. Lee, T. D. 1992.
- , Jay. D-wave solution to pion-proton scattering data. 90.
- Low-energy behavior of the phase shift in pion-proton scattering. 423.
- Measurement of Coulomb interference in 113-Mev π^+ -p scattering. 424.
- Scattering of 23-Mev positive pions on hydrogen. 983.
- Energy dependence of the phase shifts in pion-proton scattering. 1603.
- , Glasser, R. G., Haskin, D. M. and Schein, Marcel. High-energy electron pair produced by 113-Mev positive pion. 405.
- , Slater, William, Lord, J. J., Eilenberg, S. L. and Weaver, A. B. Elastic scattering of 26-Mev negative pions by hydrogen in emulsion. 423.
- Oriani, R. A. Thermodynamics of liquid Ag-Au and Au-Cu alloys and the question of strain energy in solid solutions. 2544.
- Orkin-Lecourtois, A., Kayas, G. et Hoang-Tchang-Fong. Méthodes de mesures de masses par scattering, comptage de lacunes, et comptage de grains, utilisées par le roupe de l'École Polytechnique (Paris). 1121.
- , Mlle Agnès s. Crussard, Jean. 393.
- s. Hoang, T. F. 1136.
- Orkney, J. C. s. Binnie, A. M. 735.
- Orlin, J. J. s. Gibson, W. W. 2017.
- Orlov, Y. Non linear theory of betatron oscillations in the strong-focusing synchrotron. I. 1986.
- Ornstein, L. Th. M., Kropveld, R. E. W. and Wapstra, A. H. Excitation curve for A(d, α 2n) reaction on Ag. 2367.
- s. Nijgh, G. J. 242.
- s. Nussbaum, R. H. 1781, 1782.
- s. Wapstra, A. H. 1782.
- O'Rourke, R. C. Problem in shower theory — approximation A. 1177.
- and Anderson, A. Problem in shower theory (approximation A). 1802.
- s. Faust, W. R. 1379.
- s. Sáenz, A. W. 10.
- Orr jr., Clyde and Blocker, H. G. Viscosity of suspensions of spheres. 1207.
- , S. F. D. Design of a ratio-recording spectrophotometer with double-pass monochromator. 1062.
- s. Booth, J. 254.
- , S. R. s. Eichelberger, J. F. 1769.
- Ortel, W. C. G. s. Boggild, J. K. 1757.
- s. Davies, J. H. 763.
- s. Fowler, P. H. 950.
- Ortmann, H. s. Riehl, N. 692, 1470.
- Ortner, Gustav and Nadi, Abdel Fattah el. Intermediate an large atmospheric ions at Cairo-Giza. 1914.
- Ortusi. Particularités des propagations troposphériques et leurs analogies en mécanique ondulatoire. 2177.
- Orville-Thomas, W. J. Structure of the nitric oxide dimer. 1185.
- Osada, Kaio s. Kanai, Koyoshi. 2565.
- , Kikusaburo. Ultraviolet absorption spectra of glasses containing Ti, and heavy metals. 2428.
- Osawa, Fumio, Imai, Nobuhisa and Kagawa, Ikumi. Theory of strong poly-electrolyte solutions. I. Coiled macro ions. 454.
- Osborn, R. K. and Klema, E. D. Empirical correlation of nuclear magnetic moments. 1767.
- Osborne, Darrell W. s. Abraham, Bernard M. 1196.
- , L. S., Rankin, W. D., Stein, P. C., Wattenberg, A. and Winston, A. Search for electromagnetic interaction between μ mesons and electrons. 941.
- s. Feld, B. T. 398.
- s. Goldschmidt-Clermont, Y. 940.
- s. de Saussure, Gerard. 2013.
- , Louis S. K⁺-scattering in nuclear emulsions. 2395.
- , W. Z. s. Skeen, C. H. 1778.

- Oserow, R. P. Untersuchungen der magnetischen Struktur der Antiferromagnetika mittels Neutronen. 1641.
- Oshida, I., Ooshika, Y. and Miyasaka, R. Hydrogen bond and its infrared absorption. 2409.
- Oshio, T. s. Higashi, S. 1177.
- Osiowski, J. Stany nieustalone w układach pobudzanych ciągiem impulsów. 2502.
- Oskam, H. J. High-frequency gas discharge breakdown in neon-argon mixtures. 841.
- Osmond, W. P. Temperature-dependent resistivity of certain iron deficient magnesium manganese ferrites. 2475.
- Osokina, R. s. Lejkin, E. 2017.
- Osol, Ja. K. und Jewinsch, A. F. Bestimmung der Elementarzellenparameter von Kristallen des triklinen Systems durch die asymmetrische Methode. 257.
- Oster, Gerald and Malament, Sylvia. Crystallization and ultraviolet spectra of iodinated insulin. 1622.
- s. Alfrey jr., Turner. 1682.
- , Helmut s. Grimm, Ernst. 1098.
- Osterberg, H. and Marre, D. la. Modified method of Fizeau fringes for thickness measurements. 727.
- Ostrow, S. M. Zu Hanson-H, G. Serson, H. V. and Campbell, W.: Maximum usable frequencies and lowest usable frequencies for the path Washington to Resolute Bay. 524.
- O'Sullivan, D. G. Transformation of solutions of diffusion equations valid for certain initial and boundary conditions. 1514.
- Oswatitsch, Klaus. Strömung in einem Überschallgitter. 738.
- Ota, Masaziro. Analysis on the diurnal variation of the terrestrial magnetism, especially on the day-time-variation of geomagnetically quiet days. 2239.
- Seasonal variations of the activity of S_q field of terrestrial magnetism. 2569.
- Geomagnetic activity characterized by the K-indices. 2569.
- Otake, Shuichi s. Fukuda, Nobuyuki. 2392.
- Otero, J. M. y Aguilar, M. Acomodación en la miopia nocturna. 340, 1692.
- Othmer, Donald F. and Fröhlich, Gerhard J. Correlating permeability constants of gases through plastic membranes. 2093.
- Otsuka, Eizo s. Tomura, Masao. 2117.
- Otsuki, S. s. Fujii, S. 2360.
- , Shoichiro and Tamagaki, Ryojo. Meson-theoretical potentials. 2270.
- , Sawada, Tatsuro and Suekane, Sayot. Properties of the meson theoretical potentials in Li^6 . 1765.
- Ott, W. L. s. Lewis, C. L. 504.
- Otter jr., F. A. Thermoelectric power and resistivity of dilute alloys of Mn, Pd and Pt in Cu, Ag and Au. 1241.
- Flanders, P. J. and Klockholm, E. Ferromagnetism in noble metal alloys containing manganese. 1474.
- s. Domenicali, C. A. 844.
- , M. s. Menzel, E. 445.
- Otto, C. R. Control equipment. 2277.
- Otuka, Masuhiko s. Husimi, Kôdi. 2266.
- Ovenshine, S. J. s. Werner, G. K. 1535.
- Overbeek, A. J. W. M. van., Jonker, J. L. H. und Rodenhuis, K. Dezimalzählröhre für hohe Zählgeschwindigkeiten. 34.
- , J. Th. G. s. Groot, S. R. de. 2099.
- s. Harmsen, G. J. 1206.
- Overend, J. and Thompson, H. W. Vibrationrotation bands and rotational constants of dideuteroacetylene. 624.
- Vibrationrotation bands of mono-deuteroacetylene and the molecular dimensions. 1402.
- Overhauser, A. W. s. Ehrenreich, H. 2122.
- Overstreet, Roy s. Babcock, K. L. 2158.
- Overton, jr. W. C. and Berlincourt, Ted G. Pressure dependence of de Haas-van Alphen parameters in bismuth. 1427.
- Overweel, G. J. s. Niggli, E. 874.
- Owen, B. G. s. Eycions, D. A. 245.
- , Benton Brooks. Mobilités limites de quelques ions simples en fonction de la température. 2155.
- , G. E. s. Fowler, J. M. 959.
- s. Stewart, A. B. 1048.
- s. Warner, R. E. 144.
- , George E. s. Madansky, L. 1772.
- , J., Browne, M. E. and Kip, A. F. Electron spin resonance in Cu-Mn and Ag-Mn alloys. 1848.
- , M. E. s. Jeffries, T. O. 2344.
- , R. B. Application of multiplier photocells to scintillation counting. 226.
- Oxley, C. L. and Telegdi, V. L. Scattering of 30-90 Mev gamma-rays by protons. 2042.
- Oyarzabal, Juan de. Pion-pair production. 2021.
- Ozaki, S. s. Higashi, S. 1178.

P

- Pacault, A. et Bothorel, P.* Rotation empêchée dans les molécules organiques. Aspect thermodynamique de la question. 1402.
- , *Vankerckhoven, A., Hoarau, J. et Jousset-Dubien, J.* Appareil pour la mesure des susceptibilités magnétiques. Pendule de translation du type Weiss-Foex-Forrer. 274.
- *s. Bergmann, E. D.* 278.
- , *Adolphe s. Jousset-Dubien, Jacques.* 1844.
- Pace, E. L. s. Pierce, Louis.* 1112.
- Pachner, Jaroslav.* Theory of the diffraction of a scalar wave by a plane screen. 860.
- Pachucki, C. F. s. Mattraw, H. C.* 1958.
- Pack, L. J. and Phelps, A. V.* Drift velocity of electrons in helium and hydrogen at low fields. 837.
- Packham, B. A.* Theory of symmetrical gravity waves of finite amplitude. II. Solitary wave. 1105.
- Padden, F. J. and DeWitt, T. W.* Rheological properties of concentrated polyisobutylene solutions. 2080.
- , *F. J. jr. s. DeWitt, T. W.* 1629.
- *s. Markovitz, H.* 1629.
- , *Thomas R.* Application of cathodic vacuum etching to electron metallography. 2210.
- Padelt, E.* Stand des Waagenbaues. 1099.
- Padfield, Daphne G.* Tensor forces and the neutron-proton interaction. 2004.
- Paetzold, H. K.* Ozone layer and its variations. 531.
- Experimental and theoretical investigations on the atmospheric ozone layer. 1916.
- , *Hans-Karl.* Einfache und stabile Barographeneinrichtung. 1486.
- Page, Benjamin L.* Calibration of meter line standards of length at the National Bureau of Standards. 1721.
- , *E. B. s. Rogers, E. C.* 1231.
- , *L. A., Heinberg, M., Wallace, J. and Trout, T.* Angular correlation in two-photon annihilation in quartz. 1129.
- Pagnia, H. and Stöckman, F.* Thermal formation of colloids from F centers in KCl crystals. 799.
- Pahl, M.* Stabilität organischer Moleküle bei Elektronenstoß. 2055.
- Pahl, M.* Stabilität der geraden Alkohole, Mercaptane und Alkylbenzole bei Elektronenstoß. 2056.
- *s. Hiby, J. W.* 1102.
- Pai, S. I.* Turbulent jet mixing of two gases at constant temperature. 917.
- Jet mixing of two compressible fluids. 2295.
- Paige, E. G. S. s. Mitchell, E. W. K.* 630.
- Paillard, G.* Etude des solutions de gaz par spectrographie infrarouge. 1402.
- Pailthorpe, M. W. s. Lambert, J. D.* 16.
- Paine, T. O. and Mendelsohn, L. I.* High-coercive force permanent-magnet materials and their application. 2546.
- Pais, A.* Baryon-meson-photon system. 2351.
- and *Piccioni, O.* Decay and absorption of the 0° . 1998.
- and *Serber, R.* Interaction between K-particles and nucleons. 1992.
- *s. Gell-Mann, M.* 939.
- Pake, G. E. s. Weissman, S. I.* 122.
- Pakisier, L. C. and Mabey, D. R.* Mapping shallow horizons with the reflection seismograph. 892.
- Pal, Yash s. Caldwell, David, O.* 1758.
- *s. Daniel, R. R.* 225, 939.
- Palacios, Julio.* Electrostatic energy of atomic nuclei. 764.
- Palazzi, G. Diambrini.* Magnetic differential probe. Employment for the determination of the static median magnetic surface in the gap of a synchrotron. 1751.
- Pales, J. C. s. Phillips, B. B.* 1701.
- Palevsky, H. and Eisberg, R. M.* Magnetic scattering of slow neutrons by gaseous oxygen. 979.
- , *Hughes, D. J. and Zimmermann, R. L.* Inelastic scattering of cold neutrons by the lattice vibrations of crystalline solids. 1594.
- , *Zimmermann, R. L., Eisberg, R. M. and Hughes, D. J.* Measurement of energy variation of the neutron multiplication, n , for U^{233} , U^{235} and Cu^{239} in the thermal region. 1753.
- *s. Carter, R. S.* 1594.
- *s. Zimmermann, R. L.* 1380.
- Palfrey, T. R. jr. s. Tatro, C. A.* 1775.
- *T. R. s. Voss, J. R.* 397.
- Palit, Santi R. and Biswas, Byomkesh.* Slow disappearance of fluorescence in thionine on addition of abietic acid. 1470.

- Palma, M. U. s. Vittorelli, M. B. Palma.* 816.
- Palmatier, E. D., Meers, J. T. and Askey, C. M.* Landau distribution and density effect at high gas pressures. 982.
- *s. Reeves, Tricia.* 616.
- Palmen, P. J. W. s. Koudijs, B.* 2012.
- Palmer, A. R. s. Boardman, N. K.* 1012.
- , *G. H. and Aitken, K. L.* Mass spectrometer ion source for solid material. 1981.
- , *H. P. s. Brown, R. Hanbury.* 174.
- *s. Brewer, A. W.* 749.
- , *Kenneth J. s. Corey, Robert B.* 2067.
- , *L. S.* Dielectric constant of the water in wet clay. 712.
- *s. Cownie, A.* 712.
- , *R. B. J. and Simons, H. A. B.* Variation of track length with angle of dip in photographic nuclear research emulsion. 554.
- , *R. R. s. Bollinger, L. M.* 1564.
- Palumbo, D. s. Vittorelli, M. B. Palma.* 816.
- Pancharatnam, S.* Propagation of light in absorbing biaxial crystals. I. Theoretical. 1888.
- Pancholy, M. s. Parthasarathy, S.* 741, 1108, 1956.
- Pandher, B. S. s. Ghai, M. L.* 2275.
- Pando, Manuel Velasco de.* Masa plástica comprimida entre dos planos paralelos. 2284.
- Pandya, Sudhir P. s. French, J. B.* 1763.
- Paneth, F. A.* Radioactive standards and units. 1971.
- , *Martin, G. R. and Thomson, S. J.* Origin and age meteorites. 2233.
- Panetti, M. s. Bonetti, A.* 1339.
- Pangher, J. de and Roesch, W. C.* Neutron dosimeter with uniform sensitivity form 0.1 to 3.0 Mev. 1515.
- Pangher, John, de.* n-p scattering at 300 Mev. 1596.
- Panke, H. s. Dziargwa, H.* 499.
- Pannell, J. H.* Radiation therapy with radioactive cobalt-60. 172.
- Pannetier, Guy s. Doucet, Yves* 2321.
- Pannier, Fritz s. Harder, Walter.* 534.
- Panofsky, W. K. H. and Yodh, G. B.* Pion production from hydrogen by 600-Mev electrons. 1524.
- , *Newton, C. M. and Yodh, G. B.* Pion production by electrons. 1341.
- *s. Masek, G. E.* 1524, 2354.
- Pant, L. M. s. Saksena, B. D.* 327, 863, 1890.
- Paoletti, A. s. Careri, G.* 636.
- Papa, A. R. s. Jogarao, A.* 1302.
- Papapetrou, A.* Problem der Bewegung in der allgemeinen Relativitätstheorie. 1710.
- Papas, Charles H. s. Borgnis, Fritz E.* 1289.
- Papée, Denis.* Relation entre vitesse d'adsorption et isotherme. 457.
- Papen, H.* Einwirkung der Elektronen-emission aus glühenden Metallen auf die Durchschlagsspannung im Hinblick auf den Löschvorgang im Leistungsschalter. 675.
- Papian, William N.* Ferrite-core memory uses pulse transformers. 185.
- Papić, Pavle.* Espaces admettant une base ramifiée de voisinages. 2259.
- Papier, Jean.* Extraction électrolytique des carbures d'un acier rapide trempé. 2214.
- Paquette, D. R. s. Perls, T. A.* 371.
- Paquot, C. et Galletaud, Mlle C.* Ponts de solidification des mélanges d'acides et d'esters de la série grasse. 2316.
- et *Mercier, Mlle J.* Etude polarographique de l'autoxydation de l'oléate de méthyle. 2485.
- et *Perron, R.* Appareil pour la détermination des points de fusion de solidification et autres. 2327.
- Papoulis, A.* Penetration of an electromagnetic wave into a ferromagnetic material. 2454.
- Pappis, J. s. Bickford, L. R. jr.* 2463.
- Paranjape, B. F. s. Fröhlich, H.* 843.
- Parasol, Matthew.* Determination of the compositions and temperatures of stratospheric clouds. 2250.
- Paris, C. H. and Endt, P. M.* Angular distributions of four neutron groups from the $^{10}\text{B}(\text{d}, \text{n})$ ^{11}C reaction. 951.
- , *Buechner, W. W. and Endt, P. M.* Energy levels of S^{33} , S^{35} , Cl^{36} , Cl^{38} and Ba^{139} . 2372.
- , *Valckx, F. P. G. and Endt, P. M.* Angular distribution and yield of protons from the $^{10}\text{B}(\text{d}, \text{p})$ ^{11}B reaction. II. 951.
- *s. Endt, P. M.* 1981. 2012.
- *s. Veenstra, P. C.* 1985.
- Paris, D.* Wellenlängenunabhängiger Amplitudenausgleich zum Dreispaltinterferometer. 157.

- Park, David.* Radiations from a spinning rod. 1713.
- , *G. S.* Influence of various factors on the time dependent nature of diffusion in polymers. 455.
- , *J. G. s. Cooke, A. H.* 1533.
- , *Rita P. s. Griffel, Maurice.* 266.
- Parkash, Om s. Macpherson, I.* 393.
- Parker, C. A. s. Ingram, D. J. E.* 2414.
- , *E. N.* Gravitational instability of a turbulent medium. 2237.
- , *Eugene N.* Hydromagnetic waves and the acceleration of cosmic rays. 2046.
- , *G. M. and Williams, R. W.* Magslip isograph. 1292.
- , *H. M.* Radiation protection in the atomic energy industry. 2229.
- , *Paul M. s. Brown, L. Carlton.* 2106.
- , *Richard, H. s. Axel, Peter.* 585.
- Parkinson, D. H. and Quarrington, J. E.* Atomic heat of sodium. 1316.
- and *Roberts, L. M.* Resistance thermometer for use at helium temperatures. 210.
- , *J. S.* Control of interior noise. 207.
- , *R. W.* Night-time lower ionosphere as deduced from a theoretical and experimental investigation of coupling phenomena at 150 kc/sec. 2243.
- *s. Davids, N.* 2243.
- Parks, J. R. s. Eichelberger, J. F.* 1769.
- Parlin, Ransom B. s. Partridge, William S.* 841.
- Parmenter, R. H.* Energy levels of a disordered alloy. 442.
- Parolini, G.* Akustische Absorption durch zylindrische Schallzerstreuer. 1507.
- Parr, J. C. s. Cullen, A. L.* 642.
- , *J. Gordon s. Polonis, D. H.* 195.
- Parratt, L. G.* Structure of thin evaporated copper films by total reflection of X-rays. 1418.
- and *Hempstead, C. F.* Universal curves for dispersion and scattering of X-rays. 161.
- *s. Jossem, E. L.* 124.
- Parry, G. s. Martin, D. G. E.* 949, 2361.
- , *J. H.* Reversed magnetization in igneous rocks. 2240.
- , *J. V. L. s. Essen, L.* 1208.
- Parsons, Roger and Bockris, J. O. M.* Calculation of the energy of activation of discharge of hydrogen ions at metal electrodes. 2483.
- Parsons, Roger. and Devanathan, M. A. V.* Thermodynamic theory of the ideal polarized electrode. 2141.
- Parthasarathy, S. und Narasimhan, V.* Performance of a quartz oscillator in liquids. I. 1108.
- , — Efficiency of several quartz crystals oscillating at one frequency. 1737.
- , — Conversion efficiency of a piezoelectric quartz crystal: Relation between input electrical power and frequency. 2171.
- , — Dielectric heating of quartz oscillating in several organic liquids. 2305.
- , — Output of a quartz transducer oscillating in its fundamental and higher harmonics. 2306.
- , *Pancholy, M. und Tipnis, C. B.* Ultraschallausbeute eines Quarzstrahlers in verschiedenen Flüssigkeiten nach einem optischen Verfahren. 1108.
- , — and *Tipnis, C. B.* Thermal method for sound absorption in liquids. 1956.
- , *Tipnis, C. B. und Pancholy, M.* Zusammenhang von optisch gemessener Ultraschallabsorption und spezifischer Wärme. 741.
- Parton, J. E. and Stairmand, G. D.* Magnetic flux probe. 813.
- Partridge, William S., Parlin, Ransom B. and Zvolinski, Bruno J.* Fixation of nitrogen in a crossed discharge. 841.
- Parts, A. G.* Calculation of the surface area of adsorbents from the adsorption isotherms. 1416.
- Parzen, George s. Keiffer, David G.* 2394.
- Pascal, A. s. Maniey, J.* 552.
- Paschke, F.* Theorie der gekoppelten Raumladungswellen. 1251.
- Pascoe, M. W. and Tabor, D.* Friction and deformation of polymers. 2083.
- Pashley, D. W. s. Kehoe, R. B.* 808.
- *s. Newman, R. C.* 457.
- Paskin, Arthur.* Contact electrification effects in a metal-metal system. I. Genrals theory. 843.
- Passaglia, Elío und Love, William F.* Electrical resistance of copper-gold alloys at low temperatures. 1022.
- Passell, L., Felix, B. R. and Silsbee, H. B.* Thermal conductivity of aluminium at low temperatures. 1741.
- *s. Felix, B. R.* 1854.

- Passell, T. O., Michel, M. C. and Bergström, I. Decay of the odd-odd isomer Ti^{198m} . 770.
- , Thomas O. s. Rasmussen, John O. 1549.
- Passetschnik, I. I. s. Karuss, Je. W. 1086.
- Passoth, G. Elektrometervverstärker. 1015.
- Experimentelle Bestimmung der Potentialdifferenz an der Oberfläche von Wasser. 2088.
- , Gerhard. Hydratationsenergien und die scheinbaren Molvolumen einwertiger Ionen. 2321.
- Pastor, Ricardo C. s. Hutchison, Clyde A. jr. 122.
- Patalong, Hubert s. Herlet, Adolf. 1039.
- Patat, F. Problem der Membran bei osmotischen Messungen an Hochpolymeren. 1837.
- Pate, W., Hutto, E. and Marguerat, E. Remotely-operated impact tester. 235.
- Pathria, R. K. Relativistic statistical mechanics of an assembly in mass-motion. 1922.
- Patni, G. C. Internal ballistics of composite charges with non-linear law of burning. 1953.
- Patrick, F. B. s. Yoder, P. R. jr. 1458.
- Patronis, E. T. jr. s. Braden, C. H. 239.
- Patssjuk, G. M. s. Dsherpetow, Ch. A. 298.
- Patter, D. M. van and Whaling, Ward. Nuclear disintegration energies. 766.
- , Simmons, B. E., Stratton, T. F. and Zipoy, D. M. Angular distribution of the $O^{16}(d, p) O^{17}$ reaction. 572.
- s. Simmons, B. E. 582.
- Patterson, A. L. Orthogonal unit vector triplet associated with a general lattice. 2068.
- , D. A. and Klick, C. C. Low temperature luminescence in KCl: Ti. 1891.
- , J. R., Newson, H. W. and Merzbacher, E. Neutron resonances in the kolovolt region: F^{19} and P^{31} . 1561.
- s. Toller, L. A. 1554.
- , L. T. s. Gurnee, E. F. 1412.
- Patti, F. s. Bonet-Maury, P. 704.
- Patton, B. J. s. Stephens, W. E. 954.
- , R. G. and Hatfield, P. Ultrasonic techniques in the rubber industry. 335.
- Patzelt, V. Spiegelmikroskope. 2521.
- Paul, Donald E. s. Weissman, S. I. 122.
- , E. B. Energy release in the reaction ${}^7Li(d, p) {}^8Li$. 2012.
- , Bartholomew, G. A., Gove, H. E. and Litherland, A. E. Gamma rays from proton bombardment of Mg^{24} . 1371.
- Paul, Gove, H. E., Litherland, A. E. and Bartholomew, G. A. Proton capture gamma rays from the reaction $P^{31}(p, \gamma) S^{32}$ leading to the ground and first excited states of S^{32} . 1559.
- s. Almqvist, E. 1774.
- s. Bartholomew, G. A. 964, 1548, 1784.
- s. Gove, H. E. 65, 73, 1784, 1785.
- s. Litherland, A. E. 572, 1370.
- , Fred W. X-ray studies of optical coatings. 2091.
- , H. and Steffen, R. M. Extranuclear effects on the directional correlation of the Ta^{181} gamma rays. 589.
- , Ronald S. Gamma-ray absorption coefficients at 6.13 Mev. 1682.
- , Sukh Deo s. Verma, Mulk Raj. 194.
- , W. s. Benedek, G. B. 1859, 2122.
- s. Gund, K. 1985.
- s. Warschauer, D. M. 2121.
- Paulévé, J. s. Dautreppe, D. 643.
- Pauli, W. s. Källén, G. 2267.
- Paulik, F. s. Erdey, L. 213.
- , J. s. Erdey, L. 213.
- Pauling, Linus. 894.
- Paulissen, George and Mark, Hans. Electric excitation of palladium, cadmium and molybdenum by protons. 1788.
- s. Mark, Hans 592.
- Pauly, H. s. Aurand, K. 2227.
- Pauncz, R. Quantummechanical method of approximation. 2271.
- Pawlek, Franz und Reichel, Karl. Anwendungsmöglichkeiten der Magnetometerapparatur und bisherige Meßergebnisse. 1209.
- Pawlowski, J. Fragen der Rheologie. 1503.
- Payne, P. R. s. White, D. F. 2338.
- , W. B. and Levinger, J. S. Relativistic radiative transitions. 1614.
- Peach, Milton O. Mechanism of growth of whiskers on cadmium. 1625.
- Peacock, John, Schmidt, F. C., Davis, R. E. and Schaap, W. B. Physical chemical studies of solutions in anhydrous ethylenediamine. II. Conductances and viscosities of solutions of mercuric bromide, iodide and cyanide. 2322.
- , N. J. s. Hopwood, W. 2488.
- s. Wilkes, A. 2489.
- Peake, H. J. and Duvy, N. Capacity and field of a cylindrical trough with a plane conductor in the axial plane of symmetry. 644.

- Peake, S. L. s. Pound, G. M. 2316.
- Pearce, C. A. R. s. Howe, H. A. 1207.
- Permittivity of two phase mixtures. 842.
- Pearcey, T. and Hill, G. W. Programme design for the C.S.I.R.O. Mark I computer. I. Computer conventions. II. Programme techniques. 184. III. Adaptation of routines for elaborate arithmetical operations. 896.
- and McHugh, B. Calculation of viscous flow around spheres at low Reynolds' numbers. 203.
- s. Hill, G. W. 2263.
- Pearlman, Alan R. Transistor power supply for Geiger counters. 1322.
- , N. and Keesom, P. H. Atomic heat of graphite between 1° and 20° K. 1110.
- s. Keesom, P. H. 25, 1110, 1316.
- Pearlstein, E., Ingham, H. and Smoluchowski, R. Energy dependence of radiation effects in solids. 1175.
- s. Smoluchowski, R. 1175.
- Pearson, David s. Benson, Sidney, W. 28.
- , G. L., Montgomery, H. C. and Feldmann, W. L. Noise in silicon p-n junction photocells. 2139.
- , Read, W. T. jr and Feldmann, W. L. Mechanical properties of Si, Ge and ZnO whiskers. 1433.
- s. Chapin, D. M. 2478.
- s. Fletcher, R. C. 130.
- , John and Rinehart, John S. Application of the engraving method to the study of particle velocity distribution in explosively loaded cylinders. 21.
- , Ralph G. Influence of the solvent in explosively loaded cylinders. 21.
- , Ralph G. Influence of the solvent on rates of ionization, entropies, and heats of activation. 2324.
- , W. B. Electron transport in copper and dilute at low temperature. III. Solid solutions of iron in copper. 125.
- IV. Resistance minimum: Temperature of occurrence as a function of solute concentration. 125.
- Method of examining structural changes of metals on deformation liquid helium: examination of indium. 1001.
- and Templeton, I. M. Thermoelectricity at low temperatures. III. Absolute scale of thermo-electric power: critical discussion of the present scale at low temperatures and preliminary measurements towards its redetermination. 300.
- Pearson, W. B. s. Mooser, E. 2468.
- Pease, Jane S. s. Pease, L. 366, 1927.
- , Robert L. and Pease, Jane S. Exact interaction of scalar and electrostatic fields. 366.
- , R. S. Measurement of specimen temperature in a high temperature X-ray powder camera. 792.
- s. Kinchin, G. H. 1387, 1800.
- , Robert L. and Pease, Jane. Necessary condition for positive definite energy. 1927.
- Peaslee, A. T. jr. Production of pairs in the capture of slow neutrons by protons. 1989.
- , D. C. Pion production ratios. II. 47.
- Supermultiple evidence from isotopic spin spacing. 61.
- Kombinationen der Wechselwirkungsterme in der Theorie des β -Zerfalls. 77.
- Nuclear oscillator potential. 366.
- Normalized β interactions. 596.
- Absolute selection rules for meson decay. 900.
- Pion photoproduction ratios. 942.
- Speculation on V-spin. 2351.
- s. Drachman, R. J. 51.
- Peat, S. W. and Ross, M. A. S. Radioactive disintegration of ^{232}Th . 402.
- Peck, Charles F. jr. s. Romualdi, James P. 1267.
- , G. T. s. Dombrowski, N. 315.
- , Virgil and Kaye, Wilbur. Behavior of crystallites in polyethylene. 2083.
- Pecker, Charlotte s. Trotter, Dorothy E. 1696.
- Peckham, R. H. Method and apparatus for estimating retinal sensitivity with flicker. 2225.
- Pederson, E. C. B. and Katz, L. Betatron energy control. 558.
- Pedretti, E., Stanghellini, A., Quarenzi, e G. Osservazioni sull'interferenza coulombiana nello scattering $\pi^+ + \text{P}$. 776.
- Peebles, G. H. s. Gilvarry, J. J. 1718.
- Peed, W. F. s. Rogosa, G. L. 96.
- Pecelle, Robert. Differential cross sections for the scattering of protons by carbon as a function of incident proton energy. 1376.
- , R. W. s. Campbell, E. C. 1153.
- Peiffer, H. R. and Mitra, A. P. Effect of vertical ion transport on the nighttime E-region. 888.

- Peinke, Walter.* Mechanismus der Kanalstrahlentladung. 1392.
- Peirson, G. F., Pollard, A. H. and Care, N.* Automatic circuit reclosers. 1054.
- Pejnovic, Dusan and Markovic, B.* I. Einfluß des Zeemaneffekts auf die Absorption des Lichtes. II. Untersuchungen des Zeemaneffekts ohne Anwendung des Spektralapparates. 251.
- Pekar, S. I.* Theorie der Rekombination von Elektronen in Halbleitern. 1027.
- und *Perlin, J. J.* Rekombination der Leitfähigkeitselektronen mit den Farbzentren in Kristallen. 1027.
- Pekeris, C. L.* Solution of the Boltzmann-Hilbert integral equation. 1969.
- Pelchowitch, I.* High-resolution mass spectrometer with variable-bandwidth measuring circuits. 1980.
- Pelchowitsch, Israel s. Bonnaure, Pierre.* 1330.
- Peli, L. s. Brini, D.* 425, 680, 1324.
- Pelipetz, M. G. s. Friedel, R. A.* 1883.
- Pell, E. M.* Reverse current and carrier lifetime as a function of temperature in germanium and silicon junction diodes. 2135.
- Pellam, John R.* Andronikashvili disk measurements in liquid helium-3-helium-4 mixtures. 1198.
- Pellas, P.* Répartition du thorium dans les allanites. 178.
- Pellé, M. s. Raievski, V.* 1988.
- Pelletier, Simonne s. Quintin, Marguerite.* 1812.
- Pellieux, Roger.* Formules pour le calcul des répliques des objectifs de microscope. 2191.
- Pelt, A. van.* Spectrum of planetary nebulae having Wolf Rayet nuclei. 707.
- Pelz, Franz M.* Bemessung von symmetrischen elektrischen Filtern in Brückenschaltung nach der Betriebsparametertheorie. 1670.
- Pemberton, L. H. s. Barber, C. R.* 746.
- Pendergrass, Eugene P. s. Tuddenham, William J.* 2558.
- Pendlebury, E. D.* Perturbation theory in neutronics. 1169.
- Penfold, R. H.* Attempt to geometrize electromagnetic theory. 186.
- and *Zatzkis, Henry.* Determination of the equations of motion from a general, covariant, non-linear field theory by the approximation method of Einstein, Infeld and Hoffman. 1295.
- Penfold, A. S. and Spicer, B. M.* Detailed study of the $O^{16}(\gamma, n)O^{15}$ reaction. 2016.
- *s. Spicer, B. M.* 2016.
- Penman, S. and Brown, W. L.* Field effect in silicon. 1433.
- Penneman, Robert A. s. Jones, Llewellyn H.* 1814, 1815.
- Penner, S. s. Leiss, J. E.* 1340, 1343.
- Penning, F. M.* 1290.
- , *J. R. and Schmidt, F. H.* Decay of Ne^{23} . 1158.
- Pennington, Edwin M. s. Duckworth, Henry E.* 764.
- , *R. E. and Kobe, K. A.* Contributions of vibrational anharmonicity and rotation-vibration interaction to thermodynamic functions. 1508.
- Penrose, O.* Quantization of sound waves. I. General theory. 1009.
- Quantum mechanics of helium II. 2427.
- , *R.* Generalized inverse for matrices. 1491.
- Penselin, Siegfried und Steudel, Andreas.* Fabry-Perot-Interferometerverspiegelungen aus dielektrischen Vielfachschichten. 856.
- Pepinsky, R.* Application des rayons X à la détermination de la structure des composés biologiques. 171.
- Crystal engineering: concept in crystallography. 2063.
- *s. Cano-Corona, O.* 2221.
- *s. Danner, H. R.* 1870.
- *s. Frazer, B. C.* 298, 1660.
- *s. Jona, F.* 1238.
- *s. Saito, Y.* 2063.
- *s. Vand, V.* 790, 2066.
- , *Ray.* Neutron single crystal analysis. 104.
- Modification of R-PAC for interpretation of Patterson maps in X-ray crystal analysis. 790.
- *s. Shirane, Gen.* 1238.
- Pepper, J. H. s. Gilbert, W. S.* 1518.
- , *R. R. s. Klontz, E. E.* 2473.
- , *T. P. s. Allen, K. W.* 403.
- Percus, J. K.* Inadmissible auxiliary conditions in quantized linear systems. 1928.
- and *Yevick, G. J.* Exact new reformulation of the many body problem. 361.
- , *Jerome K. and Yevick, George J.* Extension of collective coordinates for the many body problem. 1495.

- Percus, J. K. and Yevick, George J.* Dynamical considerations on a new approach to the many-body problem. 2278.
- *s. Yevick, George J.* 111, 362, 2278.
- Perey, Mlle Marguerite et Adloff, Jean-Pierre.* Séparation AcB-AcC' par chromatographie sur papier. 765.
- *Mandel, Paul, Jacob, Mme Monique et Mandel, Mme Liba.* Incorporation du P^{32} dans les acides nucléiques. 2551.
- Perez-Mendez, V. s. Imhof, William.* 1759.
- Péri, Georges s. Blanc-Lapierre, André.* 33.
- *s. Perrot, Marcel.* 1661.
- Peria, W. T.* Photoelectric emission from metals into magnesium oxide. 674.
- Optical absorption spectra of stoichiometric single crystals of MgO. 800.
- Perkins, D. H. s. Davies, J. H.* 763.
- *s. Fowler, P. H.* 562.
- *J. F.* Monte Carlo calculation of gamma-ray reflection coefficients of concrete and aluminum. 1604.
- *s. Burford, A. O.* 1549.
- *James F.* Optimal loading of a thermoelectric generator. 1241.
- *R. B. s. Becker, R. L.* 606.
- *s. Darden, S. E.* 1597.
- *W. R. s. McDonnell, D.* 155.
- Perks, M. A.* Quadrupole moments of odd A nuclei. 568.
- Perl, M. L. Rubi, I. I. and Senitzky, B.* Nuclear electric quadrupole moment of Na^{23} . 1807.
- Perlín, J. J. s. Pekar, S. I.* 1027.
- Perlman, I., Stephens, F. and Asaro, F.* Gamma rays of Ra^{225} and Tl^{209} . 591.
- *s. Asaro, Frank.* 591, 771, 968, 1564, 1785.
- *s. Hummel, John P.* 965, 1792.
- *s. Stephens, F.* 70, 1792, 2030.
- *M. L. and Welker, Joan P.* Disintegration scheme of Rb^{83} . 1564.
- *s. Welker, Joan P.* 1563.
- Perlmutter, Arnold s. Kallmann, Hartmut.* 292.
- Perlow, G. J.* Neutron spectrometer for 100—500 Kev region. 932.
- Perls, T. A., Kissinger, C. W. and Paquette, D. R.* Steady-state calibration of vibration transducers at accelerations up to ± 4000 g. 371.
- Permingeat, F. s. Guillemin, C.* 2547.
- Perny, G. s. Nikitine, S.* 1223, 2072.
- Peronaci, Francesco.* Terremoto sardo del 13 Novembre 1948. 2565.
- Perrier, A.* Non-identité du champ et de l'induction dans le vide. 368.
- Magnétorésistance et liaisons directionnelles de l'aimantation spontanée. 1852.
- et *Blumer, O.* Limite supérieure de l'effet Nernst-v. Ettingshausen et du pouvoir thermoélectrique intrinsèque du plomb. 1853.
- *Albert.* Principe d'une méthode de mesure directe de l'aimantation normale à des lames ferromagnétiques minces. 813.
- Transformations chaleur — énergie électrique par conduction anisotrope. 2307.
- *Albert L.* Importance et l'origine des modes de description des effets magnéto galvaniques. 820.
- Perrin, G. H.* Tôles magnétiques à cristaux orientés. 1474.
- Perring, J. K. and Story, J. S.* Thermodynamic theory of fission. 1146.
- Perrins, A. R. s. Conrad, A. G.* 1937.
- Perron, R. s. Paquot, C.* 2327.
- Perrot, Marcel et Péri, Georges.* Éléments thermoélectriques particuliers. 1661.
- *s. Blanc-Lapierre, André.* 33.
- Perry, B. J. and Pierce, N. H.* Control apparatus for the movement of dosage measuring or similar equipment to indicated positions. 1904.
- *F. R. s. Major, D.* 874.
- *J. E. jr. and Bame, S. J. jr.* $T(p, \gamma)He^4$ reaction. 2010.
- *s. Day, R. B.* 979.
- *s. Henkel, R. L.* 1590.
- *K. P.* Heat transfer by convection from a hot gas jet to a plane surface. 923.
- *R. L. and Brady, J. J.* Changes in photoelectric probability factor resulting from surface contamination of aluminum. 483.
- *R. W. and Bloxson, D. E.* Electric arc heating in ultra-high temperature aerodynamics. 1951.
- *W. E.* Comparison of British and United States national radium standards. 402.
- Standardization of radioactive isotopes in Great Britain. 1147.
- Perschiz, Ja. N.* Bedingungen der Bildung und Stabilität von an Elektroden haftenden Filmen in Dielektriken. 270.

- Persh, Jerome.* Study of the behavior of the boundary layer in the region of transition from laminar to turbulent flows. 915.
- Persico, E.* Synchrotron et ses problèmes. 761.
- Persson, E.* and *Mandel, L.* Square wave response method of analysing process control systems. 1724.
- , *Karl-B.* and *Brown, Sanborn C.* Electron loss process in the hydrogen afterglow. 1232.
- , *Rolf.* Criticality of normal-water natural-uranium lattices. 1127.
- Measurements on the neutron multiplication in a system of uranium rods and ordinary water. 2348.
- , *Th. s. Hámos, L. von.* 1708.
- Peshkin, M., Roberts, J. H. and Telegdi, V. L.* Polarized neutrons on Li^6 . 1381.
- Pestil, P. et Barbaron, M.* Spectres de fluorescence de cristaux atomiques aux basses températures. 326.
- Petch, H. E.* Location of the hydrogen atoms in the unit cell of portlandite $[\text{Ca}(\text{OH})_2]$. 629.
- , *N. J.* Lowering of fracture stress due to surface adsorption. 1896.
- Peter, M. and Strandberg, M. W. P.* Molecular-beam microwave-absorption spectroscopy. 1404.
- , — Phase stabilization of microwave oscillators. 2181.
- s. *Strandberg, M. W. P.* 2060.
- , *S.* and *Brandau, H. U.* Messung stationärer Fließvorgänge an hochkonsistenten Stoffen nach dem Couette-Prinzip. 2286.
- Petermann, A.* Divergence of perturbation expansion. 362.
- Renormalisation dans les séries divergentes. 362.
- Peters, B.* Radioactive beryllium in the atmosphere and on the earth. 1326.
- Flux of primary cosmic ray nuclei of atomic number $Z \geq 2$ at geomagnetic latitude 30° . 1801.
- s. *Amaldi, E.* 235.
- s. *Biswas, S.* 1801.
- s. *Daniel, R. R.* 225. 1324.
- , *C. W. s. Ferguson, G. A.* 1119.
- , *Johannes.* Trägerfrequenzsysteme ohne lineare Verzerrungen. 846.
- , *Th.* Zusammenhang des Steenbeckschen Minimumprinzips mit dem thermodynamischen Prinzip der minimalen Entropieerzeugung. 1866.
- Peters, Th. s. Maecker, H.* 1867.
- Petersen, A. s. Matare, H. F.* 2121.
- , *Donald E. s. Pitzer, Kenneth S.* 1319.
- , *W.* Beeinflussung der Schwimmaufbereitung durch Ultraschall. 2306.
- Peterson, A. M. and Leadabrand, R. L.* Long-range radio echoes from auroral ionization. 522.
- s. *Eshleman, V. R.* 850.
- s. *Villard, O. G.* 2561.
- , *Axel H. s. Gucker, Frank T., jr.* 316.
- , *D. T. s. Allison, M.* 2362.
- , *Edward C. s. Alexeff, Igor.* 1097.
- , *J. R. s. Birge, R. W.* 1337, 1755.
- , *James R.* Mass values of identified K-mesons. 1758.
- , *L. s. Winckler, J. R.* 249.
- , *Lowell s. Reyerson, L. H.* 2447.
- , *O. S. jr., Foley, J. C. and Mosher, R. F.* Control of radiation distribution in moving beam therapy. 1278.
- , *R. E. s. Weiner, E. V.* 1691.
- , *Robert L. s. Emrich, Raymond J.* 916.
- , *R. W.* Activation diffusion and thermionic emission in oxide coated cathodes. 674.
- , *Fowler, W. A. and Lauritsen, C. C.* Fluorine-plus-proton reactions. 409.
- s. *Barnes, C. A.* 581.
- , *S. W.,* Anomalous X-ray scattering at wave-lengths far from an absorption edge. 1006.
- , *S. W., Levy, Henri A. and Simonsen, S. H.* Neutron diffraction study of tetragonal potassium dihydrogen phosphate. 105.
- s. *Levy, Henri A.* 794.
- , *Vincent and Henry, I. George.* Photo-production of mesons from hydrogen near threshold. 397.
- s. *McDonald, W. S.* 1757.
- , *Vincent Z. s. Corson, Dale R.* 1525.
- s. *Walker, R. L.* 1522.
- Petford, A. D. s. Rollin, B. V.* 1033.
- Petherbridge, P. s. Hopkinson, R. G.* 322, 323.
- Petiau, Gérard.* Evaluation de la section efficace de diffusion coulombienne dans le choc de deux corpuscules élémentaires de spins $n \hbar/2$ et $m \hbar/2$ (m et n entiers). 537.
- Théorie des corpuscules de spin quelconque et son application au cal-

- cul des sections efficaces de diffusion coulombienne. 538.
- Petiau, Gérard.* Résolution des équations d'ondes du corpuscule de spin $\frac{1}{2}$ h en interaction avec un potentiel pseudo-scalaire radial. 1930.
- Petit, André s. Horeau, Alain.* 550.
- , *Georges.* Cryométrie à haute température. 1320.
- et *Bourlange, Mlle Christiane.* Etude cryoscopique de solutions de fluorures simples et complexes dans le chlorure de sodium fondu. 1112.
- Petildidier.* Surfaces-limite d'élasticité et de rupture. 2285.
- Petker, Ira s. Mason, David M.* 1943.
- Petralia, S.* Assorbimento di ultrasuoni in miscela di gas contenenti idrogeno. 1956.
- s. *Cevolani, M.* 741.
- Petráš, Milan.* Theory of the Pauli-Fierz equation for a particle with spin $3/2$. 1297.
- Petrascheck, W. E. jr.* Tektonische Metamorphose der Kohle. 1076.
- Petree, B. s. Koch, H. W.* 388.
- Petri, R.* Hochspannungs-Schaltanlagen unter Tage. 2504.
- , *Winfried.* Unterschiedliches Verhalten der Fe X- und Fe XIV-Emission in der Minimum-Korona. 349.
- Petriz, Richard L. and Scanlon, Wayne W.* Mobility of electrons and holes in the polar crystal, PbS. 471.
- Petroff, M. D., Mead, S. W. and Doggett, W. O.* Radioactivity of Sn¹⁰⁹. 1547.
- s. *Mead, S. W.* 1548.
- Petrow, Henry G. and Rocco, Gregory.* Fission yield of Gd¹⁵⁹ and Tb¹⁶¹. 1544.
- * *Petrowski, I. G.* Vorlesungen über partielle Differentialgleichungen. 534.
- Petrozzi, Enrico.* Verifica automatica di collegamento su reti a frequenze altissime. 2501.
- Petry, Julien s. Letort, Maurice.* 804.
- Petrzilka, Vaclav s. Dlouhy, Zdenek.* 1354.
- Pettersson, Hans.* Magnetische Kügelchen und Meteore. 2232.
- Pettus, William G., Blosser, Henry G. and Hereford, Frank L.* Scattering of 200-kev electrons in gold. 1599.
- Pevsner, A. s. Fung, S.* 1521.
- s. *Iloff, Edwin L.* 1756, 2353.
- s. *Ritson, D. M.* 1995.
- s. *Sreekantan, B. V.* 1334.
- Pevsner, Aihud and Rainwater, James.* Phaseshift optical model calculations for the elastic scattering of pions on aluminum. 2040.
- , — *Williams, Ross E. and Lindenbaum, Seymour J.* Elastic scattering of positive and negative pions on aluminum. 2039.
- s. *Lannutti, Joseph E.* 1997.
- s. *Williams, Ross.* 1385, 1603.
- Peyron, M. s. Déjardin, G.* 315.
- Peyrou, C. s. Armenteros, R.* 939, 2352.
- , *Ch. s. Lohrmann, E.* 762.
- Pfann, W. G. and Roosbroeck, W. van.* Radioactive and photoelectric p-n junction power sources. 135.
- Pfefferkorn, Gerhard.* Elektronenmikroskopische Untersuchungen an Metall-oxydschichten. 1202.
- Pfeifer, Harry.* Beobachtung magnetischer Kernresonanzen mittels entdämpfter Schwingkreise. 2105.
- Amplitude des primären Echos bei der Hahnschen Spin-Echo-Methode. 2457.
- Pfeiffer, H. und Ilchner, B.* Materietransport durch Zunderschichten. 2214.
- , *H. G. s. Liebhaufsky, H. A.* 1064.
- , *Irntraud.* Kohlaufdampfschichten aus dem Lichtbogen für elektronenmikroskopische Oberflächenabbildung. 2206.
- Pfistorf, G. K. M.* Professor Dr. phil. Harald Schering zum 75. Geburtstag. 894.
- Pfirsch, D.* Gang der Kernquadrupolmomente mit der Nukleonenzahl. 2008.
- , *Dieter.* Verallgemeinerung eines Theorems von Bloch. 1714.
- Pfister, W. Ulwick, J. C. and Marcou, R. J.* Bifurcation in the E-layer. 180.
- Pfotzer, G.* Beitrag der von μ -Mesonen angestoßenen Elektronen zu den Ultrastrahlungsschauern hinter verschieden starken Bleidicken. 425.
- , *Georg.* Nebelkammerstudie der Ultrastrahlungsschauer unter Blei in der Umgebung des zweiten Maximums der Auslösekurve. 425.
- Pfundt, Heimar s. Krempl, Hans.* 858.
- Phadke, K. R. s. Aiyá, S. V. Chandrasekhar.* 2177.
- Phelps, A. V.* Absorption studies of the helium metastable molecule. 141.

- Phelps, A. V.* Absorption studies of the metastable states of neon. 667.
- Lifetime of imprisoned resonance radiation in neon. 840.
- Diffusion and volume loss coefficients of helium metastable atoms and molecules. 1043.
- Absorption studies of helium metastable atoms and molecules. 1232.
- *s. Frost, L. S.* 1048, 1235.
- *s. Pack, J. L.* 837.
- *B. A. s. Hamilton, R. J.* 1843.
- *John.* Mathematical emphasis in undergraduate physics. 1919.
- Phibbs, E. s. Horton, G. K.* 8.
- Philbert, Georges, Génin, Jeannine et Vigneron, Léopold.* Détermination précise de l'énergie des rayons α émis par le thorium. 1769.
- Philipp, H. R.* Photoelectric emission from BaO. 845.
- *K. s. Herbst, W.* 1989.
- Phillipe, Jean.* Application de la statistique en recherche chimique. 751.
- Philippot, J. s. Prigogine, I.* 2075.
- Phillip, Ernst Otto.* Spezielle Frequenzteiler mit großem Teilverhältnis. 2181.
- Phillips, B. B., Allee, P. A., Pales, J. C. and Weossner, R. H.* Experimental analysis of the effect of air pollution on the conductivity and ion balance of the atmosphere. 1701.
- *D. S. M.* Robust air-flow meter for field use. 2290.
- *E. T. A. s. Bell, J.* 1879.
- *G. s. Mitchell, A. M. J.* 1211.
- *G. C., Russell, J. L. and Reich, C. W.* Scattering of alpha particles from helium and the 3-Mev state in Be^8 . 1542.
- *Gossett, C. R., Schiffer, J. P. and Windham, P. M.* Inelastic scattering of protons from Fe^{54} and Fe^{56} . 1789.
- *s. Gossett, C. R.* 1591.
- *s. Schiffer, J. P.* 1789.
- *G. J. and Spencer, M.* Effects of anisometric amplitude patterns in the measurement of ionospheric drifts. 179.
- *James s. Blount, Eugene.* 1652.
- *James A.* Charge equilibrium ratios for hydrogen ions from solids. 618.
- *J. H., Woolley, J. C. and Street, R.* Influence of temperature on magnetic viscosity. 336.
- Phillips, J. N. and Rideal, Eric Sir.* Influence of electrolytes on gaseous monolayers. I. Neutral films. II. Ionized films. 460.
- *J. W. s. Millard, D. J.* 373.
- *K.* Apparatus for the accurate control of the peak X-ray energy of a 20 MeV betatron. 1751.
- Betatron. 1751.
- Angular distribution of protons in the photo-disintegration of the deuteron. 2017.
- Polarization of high energy bremsstrahlung. 2039.
- *s. Allen, K. R.* 1170.
- *s. Major, D.* 874.
- *L. W.* 1955 Spring Meeting of the New York State Section at Buffalo, May 13 and 14, 1955. 182.
- *Norman E.* Thermal conductivity of indium-thallium alloys in the normal and superconducting states. 2115.
- *O. M.* Final period of decay of non-homogeneous turbulence. 736.
- Aerodynamic surface sound from a plane turbulent boundary layer. 1313.
- *s. Batchelor, G. K.* 736.
- *Robert H. s. Crowe, Kenneth M.* 396.
- *W. R. s. Jones, G. A.* 1361.
- Phillipson, S. M. s. Morrison, S. J.* 1899.
- Philofsky, H. M. s. Dakin, T. W.* 1661.
- Photaki, Iphigenia s. Brenner, M.* 873.
- Piatti, Luigi.* Veränderung von Korrosionen durch Netzmittel. III. Einfluß der Konstitution kationaktiver Netzmittel. 870.
- Picard, E. et Rogozinski, A.* Distribution des retards dans les compteurs Geiger-Müller. 929.
- Limitation de la propagation de la décharge dans les compteurs G.-M. 1975.
- Mesure du temps mort d'un compteur G. M. et de l'émission secondaire de la cathode par la méthode des coïncidences retardées. 1975.
- *K. s. Eichhoff, H. J.* 2195.
- *R. G. and Dornfeld, E. G.* Specimen heater for electron diffraction. 1004.
- Piccard, A.* Absorption des bulles d'air par l'eau. 1320.
- Piccioni, O., Clark, D., Cool, R., Friedlander, G. and Kassner, D.* External proton beam at the cosmotron. 1518.
- *s. Cool, R. I.* 423
- *s. Pais, A.* 1998.

- Picciotto, E. s. Deutsch, Sarah.* 1516.
Piccoli, W. A. s. Warrick, E. L. 2436.
Picht, J. Methode zur systematischen Errechnung einer elektronenoptisch abbildenden Feldverteilung mit bestimmten geforderten Abbildungseigenschaften. 325.
 — Totalreflexion. 1464.
 — *Johannes.* Einfluß von Fehlern bei der Herstellung optischer Systeme auf die Bildfehler dieser Systeme. 1252.
 — 50 Jahre Relativitätstheorie. 1709.
 — Einfluß von Fehlern bei der Herstellung optischer Systeme auf die Bildfehler dieser Systeme. 1880.
 — Bildfehler lichtoptisch bzw. elektronenoptisch abbildender (rotationssymmetrischer) Systeme. 1887.
 — Reflexionen am Paraboloidspiegel. 1887.
 — Optische Lichtweg-Längen zweier Strahlen zwischen Objektpunkt und bildseitigem Schnittpunkt beider Strahlen. 2199.
Picinbono, B. et Savelli, M. Mesures sur le bruit de fond en optique (spectre lié au grain des films photographiques). 323.
Pickavance, T. G. Proton linear accelerators for nuclear research. 1985.
Picker, A. D. s. Seddon, J. C. 887.
Pickett, Lucy W., Muller, Norbert and Mulliken, R. S. Hyperconjugation in $C_6H_7^+$ and other hydrocarbon ions. 100.
Pickin, J. R. s. Cockroft, H. S. 1456.
Pickroth, G. und Spitzenberg, F. Ultraschallvernebelung, ein neuer Weg zur Erzeugung von Aerosolen. 271.
Pickup, E. and Husain, A. Identity of shower particles in stars in region 1—2x minimum ionization. 1146.
 — *s. Husain, A.* 248. 990. 1756.
 — *s. Jarvis, C. J. D.* 616.
 — *s. Judek, B.* 616.
Picus, G. s. Burstein, E. 2123.
Pidd, R. W. and Hammer, C. L. Electron scattering on tungsten at 31, 40 and 60 Mev. 1598.
s. Louisell, W. H. 560.
Piddington, J. H. Four possible waves in a magneto-ionic medium. 466.
 Hydromagnetic waves in ionized gas. 1019.
 — Four possible waves in ionized gas in a magnetic field. 1646.
Piddington, J. H. Growing electromagnetic waves. 2187.
 — Growing electric spacecharge waves and Haeff's electron-wave tube. 2187.
 — Thermal theories of the high-intensity components of solar radio-frequency radiation. 2231.
Piel, Carl. Brechung des Lichtes. 1920.
Pieper, G. F. and Stanford, G. S. $B^{10} + \alpha$ reactions. 2012.
Pierce, E. T. s. Hepburn, F. 2245.
 — *J. R.* Orbital radio relays. 2185.
 — and *Danielson, W. E.* Minimum noise figure of traveling-wave tubes with uniform helices. 2187.
s. Louisell, W. H. 991.
 — *Louis.* Centrifugal distortion effects in ozone. 436.
 — and *Pace, E. L.* Triple point temperature of nitrogen trifluoride (66.37°K) as a possible fixed point. 1112.
s. N. H. s. Perry, B. J. 1904.
 — *W. M.* Blindness in physicists. 1705.
Piesch, Johanna. Beanspruchung der Bündel im modernen Fernsprechkverkehr. 2173.
Pieterse, A. C. s. Lindner, L. 2371.
Piganiol, P. et Cordier, G. le. Applications industrielles des plastiques en relation avec leur structure chimique. 1416.
Piggott, W. R. Variation of ionospheric absorption at different stations. 2245.
 — *D. S. I. R.* ionospheric absorption measuring equipment. 2572.
 — Measurement of normal E-layer critical frequencies at night. 2573.
Pignocco, Arthur J. s. Mair, Beveridge, J. 726.
Pike, E. R. s. Hughes, J. W. 1896.
Pilcher, V. E., Hughes, D. J. and Harvey, J. A. Analysis of neutron resonances and results of fast chopper measurements on tantalum. 1554.
s. Harvey, J. A. 1549.
 — *s. Hughes, D. H.* 1383.
Pilowski, K. Zustandsdiagramm der Sterne. 176.
 Zustandsdiagramm der Sterne. II. 2233.
Pilpel, N. Viscoelastic properties of aqueous soap gels. 203.
 Viscoelastic liquids. 2288.
Pilston, Robert G. and White, John U. Long path gas absorption cell. 1063.
Pilz, I. s. Kratky, O. 2431.

- Pimentel, George C. s. Haller, Wolfgang.* 997.
- Pines, David s. Bardeen, John.* 1849.
- Pinta, Maurice.* Analyse des terres rares fractionnées sur colonne d'échangeurs d'ions. 2275.
- Pinter, Tomislav.* Anwendung der kalorischen Zustandsgleichung eines van der Waalschen Gases auf den kritischen Punkt. 213.
- Piontelli, R.* Grundlagen und Anwendungsbeispiele neuer Meßanordnungen der Überspannungen. 662.
- *Zu Noddack, W. und Wrabetz, K.:* Elektrochemisches Verhalten einiger Schwermetallsulfide. 1440.
- *Comportement électrochimique des métaux (zu: J. E. Randles et K. W. Somerton).* 2140.
- *Aspects de la théorie des processus d'électrode avec transition d'électrons.* 2145.
- *Phénomènes de polarisation des métaux et structure des solutions.* 2146.
- *Bianchi, G. und Aletti, R.* Messungsmethoden der Polarisationsspannungen mittels Modellversuchen. 2146.
- *Rodolfo.* Definitionen und Mechanismus der Passivität. 827.
- Piotrowski, Edward A. and Ziomek, Joseph S.* Normal coordinate treatments and thermodynamic properties of PFCl_2 and POFCl_2 . 1816.
- Piper, Erich und Hagedorn, Heinz.* Laboratorium mit Klimaanlage. 218.
- *W. W. and Prener, J. S.* Hartree-Fock wave functions for Mn^{+4} . 1396.
- *and Williams, F. E.* Theory of electroluminescence. 1265.
- *Theory of electroluminescence of zinc sulfide crystals.* 1071.
- Pipkin, F. M. s. Christensen, R. L.* 1612.
- *s. Reynolds, J. B.* 1808.
- *s. Lemonick, Aaron.* 1347.
- Pippard, A. B.* Thermodynamics of a sheared superconductor. 281.
- *Experimental and theoretical study of the relation between magnetic field and current in a superconductor.* 282.
- *Coherence concept in superconductivity.* 282.
- *Ultrasonic attenuation in metals.* 741.
- *s. Allen, W. D.* 2113.
- *s. Faber, T. E.* 283.
- Pirani, F. A. E.* Energy-momentum tensor and the creation of matter in relativistic cosmology. 883.
- Pirani, F. A. E. s. Bass, L.* 715.
- Pircher, Georges.* Mesures courantes en hyperfréquences. 1877.
- Pirene, M. H. and Marriott, F. H. C.* Absolute threshold and frequency-of-seeing curves. 1903.
- Pironneau, Yves.* Déformation par chocs répétés de monocristaux d'Al-Cu. 508.
- *Déformation par chocs répétés de l'aluminium polycristallin recuit.* 508.
- Pisani, Giovanni s. Andreoni, Orazio.* 704.
- Pish, G. s. Charles, G. W.* 620.
- *s. Hunt, D. J.* 1546.
- Pitt, G. J. and Fletcher, M. F. †.* Spectrographic determination of germanium in coal and flue dust. 1689.
- *Geoffrey J.* Refinement of the crystal structure of potassium benzylpenicillin. 2067.
- Pittman, G. F. jr.* Selenium rectifier instantaneous characteristics. 1654.
- Pitts, E.* Theory of radioactive ion exchange. 29.
- *Extension of the theory of the conductivity and viscosity of electrolyte solutions.* 2141.
- Pitzer, Kenneth S.* Volumetric and thermodynamic properties of fluids. I. Theoretical basis and virial coefficients. 1319.
- *Lippmann, David, Z., Curl, R. F. jr., Huggins, Charles M. and Petersen, Donald E.* Volumetric and thermodynamic properties of fluids. II. Compressibility factor, vapor pressure and entropy of vaporization. 1319.
- Pixley, R. E., Bader, M. and Whaling, Ward.* Energy loss of protons in metals. 1797.
- Pizy, Melle M. s. Grund, A.* 2067.
- Pizzarello, Frank.* Vapor phase crystal growth of lead sulfide crystals. 1625.
- *F. A. s. DeVaux, L. H.* 2131.
- Plunk, R.* Oberflächenspannung der Freone. 268.
- *Unter kühlung von verflüssigtem Kältemittel durch angesaugte Kältemitteldämpfe.* 1500.
- Plano, Richard J. and Pless, Irvin A.* Negative pressure pentane bubble chamber used in high-energy experiments. 1747.
- *s. Pless, Irvin A.* 1796.
- Plaskett, J. S. s. March, N. H.* 2267.
- Plassmann, E. A. and Langer, L. M.* Beta spectrum of radium E. 79.

- Platt, J. B. s. Camac, M. 1344, 1345.
- , John R. Symbolic structural formulas for boron hydrides. 1185.
- Box model and electron densities in conjugated systems. 1616.
- Platzman, Robert L. Subexcitation electrons. 986.
- Plaza, A. s. Solis, M. 340, 698.
- , Ana s. Aguilar, M. 172, 2554.
- Plazek, D. J. and Ferry, John D. Dynamic mechanical properties of concentrated cellulose trinitrate solutions. 1412.
- Pleasanton, Frances s. Snell, Arthur H. 564.
- Plebanski, J. s. Kulikowski, R. 2513.
- Plendl, H. S. and Steigert, F. E. Levels in Sc^{41} . 1157.
- Plesch, P. H. Chemismus der Kationen-Polymerisation. 1835.
- , R. und Schaal, A. Oberflächennahe Ausmessung kleiner Gammastrahler mit der Cadmium-Sulfid-Kristallsonde. 1079.
- Pless, Irwin A. and Plano, Richard J. 456-Mev proton interactions with hydrogen and carbon. 1796.
- s. Plano, Richard J. 1747.
- Plesset, M. S. and Mitchell, T. P. Stability of the spherical shape of a vapor cavity in a liquid. 19.
- Plessner, K. W. and Cook, K. A. Anomalous temperature coefficient of permittivity in barium titanate. 299.
- and West, R. Replacement of Ti in BaTiO_3 ceramic by Si and Ge. 1051.
- Plester, D. W. Rogers, S. E. and Ubbelohde, A. R. Melting and crystal structure mechanisms of melting of of alkali thiocyanates. 1741.
- Plith, Karl und Reuber, Ellen. Debye-Scherrer-Aufnahmen mit gebogenem Monochromatorkristall. 1898.
- und Stranski, Ivan N. Strukturuntersuchung des Arsenikglases. Fourieranalyse. 1899.
- Pljutto, A. A. s. Bondarenko, W. W. 280.
- Plock, F. M. s. Levin, S. B. 1627.
- Ploke, Martin s. Keller, Manfred. 1080.
- Plotkin, M. s. Cottingham, J. G. 1752.
- Plough, Harold H. Radiation tolerances and genetic effects. 2230.
- Plumb, Harmon H. and Marcus, Jules A. Thermal conductivity of gallium single crystals at low temperatures. 1740.
- , Robert C. and Lewis, John E. How to minimize errors in neutron activation analysis. 1124.
- Pluvinage, P. Approximations systématiques dans la résolution de l'équation de Schrödinger des atomes à deux électrons. I. Principe de la méthode. Etats S symétriques. 1931.
- Plyler, Earle K. and Acquista, Nicolo. Infrared absorption spectra of thirteen organic compounds from 25 to 50 μ . 1678.
- Blaine, Lamdin R. and Tidwell, Eugene D. Infrared absorption and emission spectra of carbon monoxide in the region from 4 to 6 microns. 2409.
- , —, — Precise measurement of wavelengths in infrared spectra. 2523.
- s. Allen, Harry C. jr. 253, 1815.
- s. Benedict, W. S. 253.
- s. Mann, D. E. 431, 433, 1815.
- Plymale, W. S. jr. Use of a 2042°K color field in low-level photometry. 857.
- Podolanski, J. s. Umezawa, H. 1094.
- Podszcek, K. H. Fernübertragung durch Hochfrequenz. 1490.
- Poë, A. J. Radioactivity of ^{183}Ta , ^{185}Ta , ^{183m}W and ^{185m}W . 74.
- Pöschl, Th.†. 894.
- Stoßprobleme für verbundene Systeme nach der Lagrangeschen Methode. 1311.
- Verbesserung der RITZschen Methode 2260.
- Poeverlein, Hermann. Große Reichweiten von m-, dm- und cm-Wellen. 1449.
- Poganski, Siegfried. Kapazitätsarme Selengleichrichter. 1228.
- Sperrmechanismus von Selengleichrichtern. 2138.
- Pohl, E. Simple threefold coincidence circuit using only one EQ 80 (6 BE7) valve. 1514.
- , W. J. and Rogers, D. C. U. h. f. triodes. Design for class C earthed-grid operation. 683.
- Pohlack, Hubert. Homogene Zweifachschichten zur Reflexionsminderung und ihre Anwendbarkeit in der Praxis. 317.
- Reflexionsminderung optischer Gläser bei nichtsenkrechtem Lichteinfall. 317.
- Lichtteilung durch dünne Metallschichten. 687.
- Synthese optischer Interferenzschichtsysteme mit vorgegebenen Spektraleigenschaften. 2524.
- Pohlitz, W. s. Lippert, W. 691.

- Pohm, A. V., Waddell, R. C. and Jensen, E. N. Smalldorder effects in beta spectra. 2384.
- , Powers, J. P. and Jensen, E. N. Beta spectrum of C^{14} . 594.
- Poiani, G. Sviluppo della componente fotonica nell'atmosfera. 2044.
- s. Beretta, E. 555.
- s. Clementel, E. 425, 609.
- Poincelot, Paul. Répartition du courant le long d'une antenne cylindrique à l'émission. 680.
- Solution rigoureuse d'un phénomène particulier de diffraction. 1874.
- Propagation de la lumière blanche dans le vide. 2189.
- Extension du principe de Fermat au temps de propagation de groupe. 2189.
- Réflexion des signaux radioélectriques sur l'ionosphère. 2572.
- Poirier, Pierre s. Fabian, Mlle Joyce. 627.
- Polder, D. s. Meijer, H. J. G. 2112.
- Policard, Albert, Collet, André et Giltaire-Ralyte, Lucette. Etude au microscope électronique de la cellule alvéolaire de mammifère. 2551.
- Polk, I. J. s. Jacobus, D. D. 1752.
- Polkinghorne, J. C. Temporally ordered graphs and bound state equations. 361.
- Feynman principle. 719.
- Integral equation for the Heisenberg current operator. 1716.
- s. Salam, A. 365.
- Poll, J. D. s. Winkel, P. 1948.
- Pollack, Irwin. Sensitivity to differences in intensity between repeated bursts of noise. 1954.
- , John L. s. Blue, Robert. E. 2525.
- Pollard, A. H. s. Peirson, G. F. 1054.
- , E. C. s. Graetzer, H. G. 1142.
- , F. H. s. Elbeih, I. I. M. 369.
- , William G. Significance of complementarity for the life sciences. 1917.
- Pollermann, M. Tröpfchenbildung an negativen und an positiven Ionen in übersättigtem Wasserdampf. 752.
- s. Maushart, R. 35.
- Polli, Silvio. Riflessione ottica di una superficie marina in condizioni naturali. 529.
- Attuale deformazione della crosta terrestre. 2564.
- Pollister, A. W., Gettner, M. E. and Ward, R. Evidence of nucleocytoplasmic interchange in frog oocytes. 2223.
- Pollnow, Gilbert F. s. McCulloh, K. E. 435.
- Pollock, D. J., Elyash, L. J. and DeWitt, T. W. Molecular weight-intrinsic viscosity study of several diene polymers. 2078.
- , J. McC., Ubbelohde, A. R. and Woodward, Ida. Hydrogen bonds in crystals. X. Isotope effect and thermal expansion of non-co-operative hydrogen bonds in furoic acid. 2055.
- Pollycove, M. s. Hine, G. J. 344.
- Polo, Santiago R. and Wilson, M. Kent. Infrared spectrum of $Si^{18}O^{18}O$ and the potential constants of SO_2 . 1815.
- Polonis, D. H., Butters, R. G. and Parr, J. Gordon. Techniques for melting reactive metals. 195.
- Polushkin, E. P. Difference between two kinds of illumination used in microscopy. 2521.
- Polya, Georges. Rôle des domaines symétriques dans le calcul de certaines grandeurs physiques. 372.
- Pomerantz, M. A., Marshall, J. F. and Shatas, R. A. Post-bombardment conductivity of MgO crystals. 2133.
- Shatas, R. A., and Marshall, J. F. Electrical conductivity induced in MgO crystals by 1.3 Mev electron bombardment. 1862.
- s. Shatas, R. A. 88.
- , Martin, A. Latitude effect of cosmic radiation at low altitudes. 991.
- , Philip. Synthesis and physical properties of n-heptane and 2,2,4-trimethylpentane. 2316.
- Pomeroy, C. D., Morgans, W. T. A. Tensile strenght of coal. 2548.
- Pominski, C. H. s. O'Connor, R. T. 2410.
- Pommier, Mlle Marie-Christine s. Collet, Luc-Henry. 2147.
- Pontier, L. s. Demon, L. 2464.
- Ponzio, M. Fiandesio, D. and Federici. Experimentelle Untersuchungen mit konzentrischem Schallgeber. 2552.
- Pool, M. L. s. Cheng, L. S. 580.
- Poore, L. s. Roseveare, W. E. 1414.
- Poots, G. s. Dennis, S. C. R. 1491.
- Pople, J. A. Molecular orbital perturbation theory. I. Perturbation method based on self-consistent orbitals. 1400.
- Communal entropy of dense systems. 1510.
- and Schofield, P. Molecular orbital perturbation theory. II. Charge dis-

- placement and stabilization in conjugated molecules. 1400.
- Pople, J. A. s. Buckingham, A. D. 497, 1513, 2170.
- s. Hush, N. S. 1810.
- s. Longuet-Higgins, H. C. 998.
- s. Murrell, J. N. 1622.
- Popoff, Kyrrille. Thermodynamique des processus irréversibles. 1512.
- Popović, Dobrila s. Popović, Vojin. 117.
- , Dragoslav and Saeland, Einar. Thermal neutron-fission cross-section of uranium 233. 2017.
- , Vojin and Popović, Dobrila. Power measurement with the cathode-ray oscilloscope. 117.
- , Zarko. Determination of the possible cases of gradeings at the telephone selectors outlets. 1663.
- Poppa, H. s. Brüche, E. 1893.
- Poppelbaum, W. Circuit antironfleur pour les alimentations tous courants. 119.
- , W. J. Mesure statique et dynamique des forces électromotrices. 2110.
- Poretti, G. G. s. Bolliger, W. 1517.
- Porges, Karl G. Alpha excitation functions of silver and copper. 2365.
- Porile, N. T. s. Flom, D. G. 2438.
- Poritsky, H. Propagation of transient fields from dipoles near the ground. 847.
- Porod, G. s. Hosemann, R. 1411.
- s. Kratky, O. 1411.
- Porreca, F. Persistence of a phase grating in some suspensions when stopping the supersonic waves. 810.
- Porschen, W. und Riezler, W. Sehr langlebige natürliche α -Strahler. 1350.
- , — Langlebige Alpha-Aktivitäten bei natürlichen Elementen. 2362.
- Porter, C. E. Cross sections and the complex potential. 1586.
- Elastic scattering of alpha particles and deuterons by complex nuclei. 1587.
- , Charles E. Neutron cross sections of light nuclei. 86.
- , F. T., Freedman, M. S., Novey, T. B. and Wagner, F. jr. First-forbidden nonunique beta spectra in Re^{186} . 595.
- , Novey, T. B. F. and Wagner, jr. ; γ angular anisotropy in Re^{186} . 1369.
- s. Freedman, M. S. 1370.
- s. Magnusson, L. B. 1160.
- , G. s. Christie, Margaret I. 783.
- Porter, G. s. Norrish, R. G. W. 1068.
- , George. Isotope effect in the band spectrum of HNO_2 . 437.
- , K. R. s. Rudzinska, Maria A. 873.
- , Richard F. s. Brewer, Leo. 26.
- , W. C. s. Swann, C. P. 1154.
- , William S. s. Johnson, John L. 239.
- Portevin, A. Internationale Forschungsgemeinschaft für mechanische Produktionstechnik. 2256.
- , Albert et Chevenard, Pierre. Observations sur la note de Collette et Jacqué: Contribution au diagramme fer-carbone par l'étude des vitesses de réaction dans le système fer-méthane-hydrogène. 508.
- Portnoy, William, M. Letaw, Harry jr. and Slijkin, Lawrence. Self-diffusion in germanium. 2126.
- Porto, S. P. S. and Dieke, G. H. Infrared spectrum of hydrogen and deuterium between one and two microns. 1814.
- Posener, D. W. and Strandberg, M. W. P. Microwave spectrum of HDO. 435.
- Posner, A. S. and Duyckaerts, G. Infra-red study of the carbonate in bone, teeth and francolite. 873.
- Post, Benjamin, Glaser, Frank W. and Moskowitz, David. Hafnium silicides. 1192.
- s. Ladell, Joshua. 2067.
- , R. F. Resolving time of scintillation counters. 229.
- Postnikow, W. S. Relaxationserscheinungen in deformierten Metallen und Legierungen. 2284.
- Potnis, V. R., Mandeville, C. E. and Burlew, John S. Radiations from platinum (197). 1366.
- Potok, M. H. N. Diffraction of a non-monochromatic electromagnetic wave by a slit and a grating. 302.
- and Wales, R. A. McF. Transistor voltmeters. 1843.
- Potter, E. C. et Bockris J., O'M. Observations sur le dégagement d'hydrogène à l'anode dans l'électrolyse des hydrures salins: nouvelles recherches. 2487.
- s. Bockris, J. O'M. 2148.
- , J. L. and Shapiro, N. M. Upstream effects induced by a jet exhausting from the base of a body of revolution. 19.
- , Richard D. Calibration of a nickel-molybdenum thermocouple. 2307.

- Potter, E. C., Roy F. Cross sections for charge transfer collisions of low-energy ions in N_2 and O_2 . 992.
- , S. M. s. Bonvallet, G. L. 207.
- Potts, D. H. s. Hudson, G. E. 465.
- , R. B. and Ward, J. C. Combinatorial method and two-dimensional Ising model. 2454.
- s. Montroll, Elliott W. 2069.
- Poulet, Henri. Propriétés piézo-optiques et électro-optiques de la blende. 299.
- Poulis, N. J. s. Hardeman, G. E. G. 1642.
- Poulter, J. s. Berman, R. 24.
- , S. R. C. s. Harrison, V. G. W. 2528.
- Pound, G. M., Madonna, L. A. and Peake, S. L. Critical supercooling of pure water droplets by a new microscopic technique. 2316.
- Simnad, M. T. and Yang, Ling. Heterogeneous nucleation of crystals from vapor. 1007.
- , R. V. s. Rice, Michael. 1766.
- Pounder, J. R. and Synge, J. L. Initial-value problem for the wave equation in N dimensions. 1496.
- Poupard, Agénor s. Breford, Jacques. 643.
- Pouradier, J. s. Venet, Mlle A. M. 551.
- , Jacques s. Raynaud, Héliette. 2204.
- Pouyet, J. s. Eisenberg, H. 265.
- Pouzol, M. s. Vergnoux, A. M. 861.
- Powell, A. and Stark, K. H. Rotating electrode unit for measurements of the electric strength of insulating liquids. 2166.
- , C. F. Use of stripped emulsions for recording the tracks of charged particles. 1977.
- s. Amaldi, E. 235.
- s. Davies, J. H. 763.
- , F. C. Notation for vectors and tensors. 1492.
- , J. L. s. Barschall, H. H. 1770.
- , Richard F. s. Connick, Robert E. 24.
- , R. W. Thermal conductivities of solid materials at high temperatures. 2312.
- s. Brown, A. R. G. 1856.
- s. Croft, A. J. 284.
- , Wilson M. s. Knapp, Myron W. 1343, 2354.
- s. Fowler, William B. 1528.
- s. Maenchen, George. 1753, 2001.
- s. Wright, Robert W. 1797.
- Power, A. D. s. Smith, A. L. 167.
- Powers, J. P. s. Pohm, A. V. 594.
- , Robert W. Mattox, Robert W. and Johnston, Herrick L. Thermal conductivities of condensed gases. I. Thermal conductivity of liquid nitrogen between 65 and 90°K. II. Thermal conductivities of liquid normal and of liquid parahydrogen from 15 to 27°K. III. Thermal conductivity of liquid deuterium from 19 to 26°K. 2311.
- , S. A. s. Holland, F. H. 861.
- Powles, J. G. Dielectric relaxation in d-camphor. 841.
- Prasad, S. N. s. Ram, Atma. 2547.
- Prast, G. jr. s. Zoonen, D. van. 1975.
- Pratje, Otto. Geophysikalische Aufschlußarbeiten in der Tiefsee. 2579.
- Pratt, George W. jr. Localized states at the boundary of two crystals. 1007.
- , R. G. s. Jennings, J. C. E. 2535.
- s. Smollett, M. 291.
- , William W. Angular distribution of protons from the reaction $Ti^{48}(d, p) Ti^{49}$. 73.
- Preining, Othmar. Experimenteller Beitrag zum Wärmeleitungsproblem bei der Differentialthermoanalyse. 1958f
- Premaswarup, D. Rotational analysis of the tantalum oxide bands. 1190.
- Prener, J. S. and Williams, F. E. Associated donor-acceptor luminescent centers. 1470.
- s. Piper, W. W. 1396.
- Prentki, J. s. d'Espagnat, B. 1991, 2350.
- Prescott, J. R. Liquid scintillator containing nitrogen. 1348.
- Present, R. D. s. Hale, D. P. 1772.
- Pressman, Jerome. Latitudinal and seasonal variations of the absorption of solar radiation by ozone. 892.
- Presson, Arthur G. s. Nichols, Peter L. jr. 2310.
- Preston, G. s. Booth, D. L. 1537.
- , J. G. s. Kear, F. G. 1452.
- , J. S. and Gordon-Smith, G. W. Discontinuities in the saturation curves of vacuum photocells. 308.
- , — Determination of the luminance factor of magnesium oxide. 318.
- s. Gillham, E. J. 640.
- , M. A. Coupling constants of the beta-decay interaction and the decay of Rb^{87} . 596.
- and Shapiro, J. Calculations on charge independence with repulsive core potentials. 81.
- s. Bird, J. R. 1350.
- s. Elliott, L. G. 2031.

Preston, G. s. Kumar, Kailash. 947.

— *s. Shapiro, J.* 601.

—, *R. L. and Hogg, B. G.* Radioactive fall-out in Kingston, Canada. 1088.

—, *R. S. s. Walker, R. M.* 941, 1133.

—, *W. M.* Spring Meeting of the New England Section at Brown University, Providence, Rhode Island, on April 2, 1955. 2.

— Minutes of the Fall Meeting of the New England Section held at Yale University, New Haven, Connecticut, on November 12, 1955. 895.

Prestwood, R. J. (n, 2n) cross section of Na^{23} at 14.1 Mev. 404.

— *Smith, H. L., Browne, C. I. and Hoffman, D. C.* Positron emission from Np^{234} . 966.

Preuss, H. Zweizwentren-Wechselwirkungsintegrale. 9.

— Kombiniertes Näherungsverfahren. 9.

— Abschätzung für Zweizentrenintegrale. 1499.

—, *L. E.* Autoradiographic studies of surface detail chromium-51. 1073.

— Remote valve for dispensing colloidal Au^{198} solutions. 2022.

— Rugged scintillation-counter housing for biological applications. 2342.

— and *Watson, John H. L.* Survey of X-radiation dosage from the EMU with special ionization chambers. 1686.

Prévot, F. et Vignet, R. Production d'un faisceau pulsé intense de deutons. 232.

—, *Mme Isabelle s. Goldschmidt, Bertrand.* 1330.

Prevot-Bernas, Mme A. et Sebban-Danon, Mme J. Polymérisation radiochimique de l'acrylonitrile. I. Variation de la vitesse globale et des masses moléculaires en fonction de l'intensité. 1836.

—, *Annette s. Bensasson, René.* 1836.

— *s. Chapiro, Adolphe.* 637.

Price, A. H. s. Dryden, J. S. 2108.

—, *B. T.* Ionization by relativistic particles. 2388.

s. Eyreons, D. A. 245.

—, *Charles C. and Gillis, Richard G.* Spectra and molecular refraction for some unsaturated sulfides, sulfoxides and sulfones. 2412.

Price, A. H. and Walsh, Joseph G. Effect of dielectric solvent medium on copolymerization. 453.

—, *F. Henley s. Holdsworth, J. F.* 2190.

—, *Fraser P.* Light scattering from crystallizing polymers. 264.

— and *Zimm, Bruno H.* Solution light scattering cell. 860.

—, *F. V. s. McNeill, K. G.* 1985.

—, *P. J.* Theorem on the many-body quantum ground state. 367.

— Quantum mechanics of fluids. 1932.

— Theory of transport effects in semiconductors: Nernst coefficient and its relation to thermoelectric power. 2117.

—, *Robert.* Entropy equivalence in the time- and frequency-domains. 1970.

—, *William E. s. Rabin, Herbert.* 2226.

—, *W. J.* Determination of trace elements in magnesium and its alloys by spectrographic procedures. 506.

Priester, W. Radioquelle Sagittarius A. 879.

— und *Dröge, F.* Mitte-Rand-Variation der solaren Radiofrequenzstrahlung von 198 MHz während der Finsternis 1954 Juni 30. 174.

Prieto, Fernando E. Field of Bhabha equation. 2024.

Prigge, W. Elastisch, plastische Vorgänge beim Brinellschen Kugeldruckversuch. 1689.

Prigogine, I. et Philippot, J. Théorie moléculaire du point λ de l'hélium liquide. 2075.

— *Bingen, R. et Bellemans, A.* Effets isotopiques et propriétés thermodynamiques en phase condensée. 1009.

— *Mazur, P. et Defay, R.* Bilans thermodynamiques locaux dans les systèmes électrochimiques. 2140.

— *s. Klein, G.* 217.

Primak, W. Experimental evidence for thermal spikes in radiation damage. 1176.

— and *Quarterman, L. A.* Surface tension of potassium. 269.

Yuster, P. H. and Delbecq, C. J. Photoelastic observation of the expansion of alkali halides on irradiation. 799.

Primakoff, H. s. Chang, C. H. 87.

Pringle, D. H. and Bradley, E. M. Microwave control valves employing the negative glow discharge. 1664.

— and *Farvis, W. E. J.* Electron groups in the helium negative glow. 142.

- Pringle, D. H. and Farvis, W. E. J.* Screened probe measurements in the helium negative glow. 667.
- and *Whitmore, E. J.* Gas discharge tubes for control of microwave attenuation. 1210.
- Pringle, R. W. s. Taylor, H. W.* 1560.
- Pringsheim, P. s. Delbecq, C. J.* 799.
- , *Peter.* Unterschiedliches Verhalten von F-Zentren in Kristallen von natürlichen Steinsalz und von synthetischem NaCl. 1008.
- Prinz, A. s. Waard, H. de.* 1978.
- , *W. and Hermans, J. J.* Charge effects in light-scattering by colloid solutions. 1636.
- *s. Waard, H. de.* 1978.
- Prinsloo, L. A.* Stark-Effekt am Wasserstoffatom. 250.
- Prinz, Hans.* Darstellung des Leitungsschalters und Kondensators im Kapazitätsgitter. 1873.
- Prinzler, H. s. Hachenberg, O.* 2231.
- Pritchard, A. G. s. Appleton, E. V.* 2243.
- , *B. S. and Holmwood, W. A.* Recording spectrophotometer. 1882.
- , *H. O. and Sumner, F. H.* Application of electronic digital computers to molecular orbital problems. II. Approximation for hetero-atom systems. 2052.
- and *Trotman-Dickenson, A. F.* C-C bond dissociation energies in cyclanes. 1186.
- , *R. L.* High-frequency power gain of junction transistors. 1041.
- Probst, Ronald F. and Elliott, David.* Transverse curvature effect in compressible axially symmetric laminar boundary layer flow. 915.
- Probyn, H. C.* Liquid level regulator for replenishing cold traps. 2274.
- Proctor, R. F.* Bridged-T impedance bridge for the v. h. f. band. 2182.
- , *W. G. and Tantila, W. H.* Saturation of nuclear electric quadrupole energy levels by ultrasonic excitation. 2458.
- *s. Blood, H. L.* 1423.
- Prodell, A. G. s. Lurio, A.* 1611, 1808.
- Proisy, P.* Particularités relevées dans le spectre de l'ammoniac à basse pression. 788.
- Proper, J. s. Thoraeus, R.* 1693.
- Prosperi, G. M. s. Bocchieri, P.* 1925.
- Prosperi, G. M. e Tosi, C.* Connessioni matematiche fra le teorie classiche dell'elettrone di Feynman e di Rzewuski. 722.
- , *Giovanni Maria.* Equazioni relativistiche del moto di una particella soggetta a forze derivanti da potenziale scalare. 1709.
- Pross, A. W.* Estimation of impurities in liquid chlorine by infra-red absorption spectrophotometry. 686.
- Prosser, F. W. s. Feaster, G. R.* 462.
- , *F. W. jr. s. Baumann, N. P.* 1137, 2390.
- *s. Krone, R. W.* 1563.
- Proudman, I. s. Batchelor, G. K.* 547.
- , *J.* Effect of friction on a progressive wave of tide and surge in an estuary. 1088.
- Prouvost, Jean.* Transformation de la cavellite, sous l'action du courant, dans un électrolyte unique. 1963.
- Prowse, D. J. and Gibson, W. M.* Magnetic spectrometer. 1980.
- *s. Freemantle, R. G.* 409, 416.
- *s. Gibson, W. M.* 769.
- , *W. A. and Jasinski, W.* Observations on the electrical breakdown of gases at 2800 Mc/s. I. II. Relative breakdown stresses, statistical lags and formative lags. 2489.
- and *Iane, P. E.* Breakdown of gases subject to crossed electric fields. 1234.
- Prud'homme, J. T. s. Little, R. N. jr.* 980.
- Prue, J. E. s. Brown, P. G. M.* 550.
- Pruett, C. H., Bolotin, H. H., Roggenkamp, P. L. and Wilkinson, R. G.* Excited states of Ce¹⁴⁰. 1365.
- , *Charles H. and Wilkinson, Roger G.* Disintegration of Ce¹³⁹. 68.
- , — Electron capture decay of O¹⁸⁵ and the excited states of Re¹⁸⁵. 964.
- *s. Bolotin, Herbert H.* 1550.
- Pruitt, John S.* Scintillation crystal-TV device X-rays objects in motion. 2197.
- Prulière, A. C.* Contrôle statistique de la qualité. 333.
- Pruppacher, Hans Rudolf und Sängler, Raymond.* Mechanismus der Vereisung unterkühlter Wassertropfen durch disperse Keimsubstanzen. 1510.
- Pryor, M. J.* Transmission-line demonstration. 302.
- Przibram, K.* Fluoridfärbungen. 1408.
- , *Karl.* Verteilung von Farbzentren und anderen Störungen in natürlichen Steinsalzkristallen. 1194.

- Pucher, W. Negativer Durchschlag von Luft in der Funkenstrecke Kugel-Platte bei Stoßspannungen. 2490.
- , Walter s. Norinder, Harald. 889.
- Puckett, T. H. s. Millman, J. 2512.
- Pugh, Emerson M. and Allison, F. E. Corrections to the Hall potential in ferromagnetic materials. 646.
- , Emerson William and Goldman, J. E. Magnetic susceptibility of metallic lithium. 647.
- , Emerson M. s. Allison, F. E. 646.
- , G. E., Gomez, R., Frisch, D. H. and Janes, G. S. Nuclear gamma-ray scattering techniques. 1174.
- s. Gomez, R. 1174.
- s. Janes, G. S. 1174.
- , R. E. s. Hines, C. O. 2561.
- , Robert E. Field theoretical description of the superconducting state. 2467.
- Pullan, H. s. Bijl, D. 1111.
- Pullman, Mme A. s. Bergmann, E. D. 278.
- , B. s. Bergmann, E. D. 278.
- s. Mayot, M. 279.
- , Bernard et Berthier, Gaston. Pouvoir de conjugaison des carbones aromatiques et l'effet bathochrome des méthyles. 626.
- Pulsford, E. W. s. Hutchinson, W. P. 1303.
- Pundsack, Fred L. s. Moeller, Therald. 2413.
- Pungs, L. Holz als Dielektrikum in Hochfrequenzfeld. 1445.
- Puppi, G. and Stanghellini, A. Phase-shift analysis in the (p^+ - p^+) scattering. 1601.
- Purcell, E. M. s. Krüger, H. 646.
- Puri, B. R. s. Lakhanpal, M. L. 2317, 2317.
- , D. D. s. Srivastava, S. S. 1445.
- Purser, K. H. s. Bogle, G. S. 1612.
- Pursey, H. s. Miller, G. F. 730.
- Pusch, G. s. Groll, H. 2451.
- Putley, E. H. Apparatus for recording the variation of Hall coefficient with temperature. 2452.
- s. Lawson, W. D. 290.
- Putman, J. L. Radioisotopes Techniques Conference-Oxford. 1951. 1706.
- , John L. s. Bullard, E. C. 1933.
- Putnam, Frank W. Ultracentrifugation of bacterial viruses. 2550.
- Putzsch, Heinrich N. Bandpaß-Filter mit aktiven Elementen. 1451.
- Putz, Reinhold. Zeigerfrequenzmesser für Starkstromfrequenzen mit großem Meßbereich und hoher Empfindlichkeit. 1207.
- Pyatt, E. C. Equipment for the vectorial display of alternating voltages in the frequency range 5-215 kc/s. 849.
- Pyle, G. L. s. Ghiorso, A. 1322.
- , R. V., Hicks, D. A. and Ise, John jr. Spontaneous fission neutron multiplicities. 1777.
- s. Birnbaum, W. 1769.
- , Robert V., Kelly, Elmer L., Richardson, J. Reginald and Thornton, Robert L. Electron models of relativistic constant frequency cyclotrons. 1752.
- s. Hicks, Donald A. 577, 2020.
- s. Ise, John jr. 1356, 1800, 2346.

Q

- Quan, Pham Man. Thermodynamique d'un fluide relativiste. 1924.
- Problème de Cauchy pour un fluide parfait thermodynamique. 1924.
- Quarenì, G. s. Ceccarelli, M. 56.
- s. Pedretti, E. 776.
- Quarrington, J. E. s. Parkinson, D. H. 1316.
- Quarterman, L. A. s. Primak, W. 269.
- Qayum, Abdul s. Chaudhri, Rafi Moham-med. 1606.
- Queen, J. L. s. Yates, W. A. 2279.
- Queisser, H. J. s. Busz-Peuckert, G. 2494.
- Quemada, Daniel s. Bayet, Michel. 1232.
- Quesney, M. s. Haissinsky, M. 2160.
- Quietzsch, Gerhard. Theorie der Lautstärke und Lautheit. 377.
- Quinan, James R. and Wiberley, Stephan E. Assignment of the O—H deformation frequency. 1619.
- Quintin, Marduerite et Pelletier, Simonne. Equilibres ioniques en solutions aqueuses d'iodure de cadmium. 1812.
- Quinton, A. R. and Beringer, R. Determination of the surface resistivity of metal surfaces by a Q-measurement. 1056.
- and Doyle, W. T. (α , n) type reactions in light nuclei. 2012.
- Quisenberry, K. S., Scolman, T. T. and Colins, T. L. Stabilization of potentials in a precision double-focusing mass spectrometer. 37.
- , — and Nier, A. O. Atomic masses of H^1 , D^2 , C^{12} and S^{32} . 1139.
- s. Scolman, T. T. 1139.
- Quitt, P. s. Brenner, M. 873.

R

- Raaen, Vernon F. s. Ropp, Gus A.* 1141.
- Raay, H. B. van der s. Goldsack, S. J.* 1977.
- Rabenhorst, Helmut.* Messung der dielektrischen Eigenschaften aus dem Haupteinfallswinkel und dem wiederhergestellten Azimut für Wellenlängen unterhalb 3 cm. 1237.
- Rabi, I. I. s. Perl, M. L.* 1807.
- Rabin, Herbert and Price, William E.* Mapping radiation fields with silver-activated phosphate glass. 2226.
- *s. Schulman, James H.* 343.
- Rabinovich, Jacques et Combettes, Aline.* Etude expérimentale de la flexion d'une plaque circulaire roumise à une pression uniforme. 912.
- Rabinowicz, E.* Relation between friction and wear for boundary-lubricated surfaces. 206.
- and *Shooter, K. V.* Transfer of metal to plastics during sliding. 1312.
- , *P. s. Trees, Richard E.* 2403.
- , *Philip s. Abramowitz, Milton.* 4.
- Raboy, S. and Krohn, V. E.* Theorem on angular correlation. 990.
- , — Gyromagnetic ratio of 10^{-8} -second Ta^{181m} . 1766.
- *s. Krohn, V. E.* 587, 1361.
- , *Sol and Krohn, Victor E.* Gamma-gamma correlation of Pb^{204m} . 587.
- Racah, G. and Talmi, I.* Pairing property of nuclear interactions. 2009.
- Rachel, A. und Jacottet, P.* 15. Tagung der Internationalen Hochspannungskonferenz. Allgemeiner Verlauf der Tagung. 1291.
- Radcliffe, J. M.* Lattice scattering in homopolar semiconductors. 1429.
- Radiciati, L. A. s. Demichelis, F.* 1161.
- *s. Morpurgo, G.* 772.
- Radin, Norman S.* Dispenser for radioactive solutions. 2556.
- Radus, R. J.* Reactor circuit with quiescent current compensation. 2503.
- Radvanyi, P.* Étude de la capture L sur le krypton 79. 592.
- Radzitzki, P. de, Wilde, M. C. de and Smets, G.* Qualitative infrared analysis of polyphenylbutadienes. 1916.
- Rae, E. R.* Magnetic spectrometer of large solid angle. 2343.
- Rädlein, G. s. Lange, E.* 673.
- Raether, H. s. Haberstroh, G.* 1803.
- Raether, H. s. Lohff, J.* 149.
- Raev, A., Uzunov, I. and Angelov, A.* Self-sustained electronic spokes in magnetrons. 1250.
- Ragazzini, J. R. and Bergen, A. R.* Mathematical technique for the analysis of linear systems. 1669.
- Ragosine, Victor E. and Sarine, Carl D.* Portable, remote-controlled radiographic source unit. 172.
- Rahm, David C. s. Glaser, Donald A.* 385.
- Rahman, A.* Excitation energies of Li_2 -molecule. 2053.
- Rai, Dharambir s. Satyanarayana, R.* 2177.
- Raidl, Franz s. Titz, Ilse.* 1017.
- Raievski, V.* Régimes transitoires dans un réacteur à eau lourde. 1988.
- et *Pellé, M.* Détecteur continu de neutrons pour la mesure des densités dans une pile. 1988.
- *s. Jacrot, B.* 234.
- Rainwater, J. s. Baker, W. F.* 1385.
- , *James s. Pevaner, Aihud.* 2039, 2040.
- *s. Williams, Ross.* 1385, 1603.
- , *L. J. s. Grimm, G.* 1326.
- Raisbeck, Gordon.* Transistor circuit design. 1040.
- Raisic, Nenad.* Fast-fission cross-sections of U^{235} and U^{238} . 1354.
- Rajaratnam, A. s. Garton, W. R. S.* 780.
- *s. Webb, C. G.* 2332.
- Rajewsky, B. und Hug, O.* Biophysikalische Gesichtspunkte zur medizinischen Isotopenforschung. 341.
- und *Jaeger, R.* Methodik der Strahlenschutzmessungen bei Röntgen- und Gamma-Strahlung unter Verwendung neuer Instrumente. 346.
- , *B. s. Bunde, E.* 1079.
- *s. Thoraeus, R.* 1693.
- Raka, E. C., Cowrant, E. D., Kassner, R. R., Laslett, L. J., Snyder, H. S. and Spiro, J.* Electron analog. Performance and interpretation. I. 1752.
- *s. Cottingham, J. G.* 1752.
- *s. Cowrant, E. D.* 1752.
- Rakovich, B. D.* Multiloop feedback amplifiers. 1249.
- Rakshit, H. and Chatterjee, S. D.* Measurement of ionospheric heights by the method of delayed coincidence. 709.
- Rall, J. E., Foster, Charles G., Robbins, Jacob, Lazerson, R., Farr, Lee E. and Rawson, Rulon W.* Dosimetric considerations in determining hemato-

- poietic damage from radioactive iodine. 2557.
- Rall, Waldo s. Lee, L. L. jr.* 2036.
- Ralph, D. C. and Dunnam, F. E.* Neutron yields as a function of energy in the reactions Li^7 (d,n) Be^8 and Be^9 (d,n) B^{10} . 972.
- *s. Fuller, J. C.* 972.
- *s. Mobley, R. C.* 1017.
- Ram, Atma and Prasad, S. N.* Transmission, absorption and reflection of solar radiations by glasses. 2547.
- Rama s. Biswas, S.* 1801.
- Rao, B. Ramachandra and Rao, E. Bhagiratha.* Continuous radio wave method of studying travelling disturbances in the ionosphere. 1700.
- and *Rao, P. Venugopala.* Determination of shear wave velocities in isotropic solids by a modified wedge method. 1955.
- Ramachandran, G. N. and Chandrasekharan, V.* Photoelastic constants of sodium chlorate. 2532.
- Ramaiah, N. A. Van der Waal's* adsorption as a determinant of *Joshi* effect. 2491.
- and *Gaur, H. C.* Ageing in the production of *Joshi* effect in mercury vapour. 298.
- , *Khosla, B. D. and Gaur, H. C.* Influence of surface films on *Joshi* effect in water vapour. 1656.
- , —, — Secondary processes for the inception of a low frequency electric discharge in iodine vapour with glass electrodes. 1867.
- *s. Khosla, B. D.* 1656, 2492.
- Ramakrishnan, Alladi.* Counters with random dead time. 553.
- and *Mathews, P. M.* Straggling of the range of fast particles as a stochastic process. 2388.
- and *Srinivasan, S. K.* Fluctuations in the number of photons in an electron-photon cascade. 2400.
- Raman, Sir C. V.* Thermal agitation in crystals. 2069.
- and *Viswanathan, K. S.* Generalised theory of the *Christiansen* experiment. 1461.
- Ramanathan, K. G. and Dhillon, J. S.* Method for measuring electrical resistivities. 1016.
- Ramanathan, K. R. and Murthy, Bh. V.* *Ramana.* Daily variation of amount of ozone in the atmosphere. 2250.
- Ramart-Lucas, Mme Pauline † et Marty-noff, Modeste.* Effet stérique et absorption des dérivés α -substitués du thionaphtène. 626.
- Ramavataaram, K.* Ultrasonic diffraction patterns in some optical glasses. 1738.
- Ramberg, H.* Crystal energetic relationships in oxysalts. 2309.
- Rambke, K.* Leitfähigkeitsänderungen dünner, aufgedampfter Silberschichten bei elektrostatischer Aufladung. 1013.
- Ramler, Warren s. Yuster, Philip.* 1126.
- , *W. J. s. Andre, C. G.* 2366.
- Ramm, C. A., Coe, R. F. and Vaughan, T. B.* Analysis of injection phenomena in the Birmingham proton synchrotron. 1986.
- Rammelt, P. P. s. Schwabe, K.* 2201.
- Ramos, Rosalino de Castro y Vega, Manuel Nosti.* Gel de cilice y sus aplicaciones industriales. I. Propiedades y métodos de obtención del gel de cilice. 2449.
- Ramsa, Alexander P. s. Jacobs, Harold.* 2480.
- Ramsauer, Carl.* Abschied von. 1290.
- Ramsay, D. A. s. Herzberg, G.* 625.
- , *J. A. and Brown, R. H. J.* Simplified apparatus and procedure for freezing-point determinations upon small volumes of fluid. 1321.
- , *D. A.* Absorption spectra of SH and SD produced by flash photolysis of H_2S and D_2S . 787.
- , *N. F. s. Stahl, R. H.* 420.
- , *Norman F.* Interactions nucléaires dans les molécules (expériences de jets moléculaires). 787.
- Collision aligment of molecules, atoms and nuclei. 1373
- Resonance transitions induced by perturbations at two or more different frequencies. 1495.
- Scientific work of Willis E. Lamb. 2255.
- Rand, A. C. s. Stang, L. G. jr.* 702.
- , *S.* Photonicuclear effect. 2367.
- Randall, D. D.* Photoelectric method for the calibration of retardation plates 1679.
- , *J. T.* Experiment in biophysics. 1474.
- Randers, Gunnar, s. Dahl, Odd.* 1753.
- Randle, T. C., Taylor, A. E. and Wood, E.* Neutron proton scattering at (156 \pm 3) MeV. 1798.

- Randles, J. E. B. and White, W.* Reactions of metal ions at mercury electrodes in fused salts. 666.
- Randolph, M. L. s. Blosser, H. G.* 1541.
- Rang, Otto.* Elektronen-Interferometrie. 164.
- Rangarajan, S.* Sporadic E layer at Kodaikanal. 524.
- Rank, D. H.* Limitation to the precision of molecular constants determined with a diffraction grating. 783.
- Spectroscopie à haute résolution dans l'infrarouge. 855.
- and *Bennett, H. E.* Problem of phase variation with wavelength in dielectric films. Extension of interferometric standards into the infrared. 1063.
- and *Shearer, J. N.* Index of refraction of air in the infrared. 1066.
- , — and *Bennett, Jean M.* Quantitative method for measuring the resolution of a large grating. 1678.
- *s. Jaffe, J. H.* 854, 1619, 1882.
- *s. Shull, E. R.* 2059.
- Ranken, W. A. s. Bent, R. D.* 1556, 1581.
- Rankin, Bayard.* Reflection goniometer for the microscope. 387.
- Simplifying approximation for determining cascade shower distributions. 989.
- Mechanical particle, analog computing machine. 1709.
- Rankin, W. s. Odian, A. C.* 953.
- , *William s. Odian, Allen.* 1146.
- , *W. D. s. Osborne, L. S.* 941.
- Ransom, P. and Rose, F. W. G.* Trap activation energies in n-type germanium. 2470.
- Rao, B. R. and Gupta, D. P.* Inertial field of a charge particle. 536.
- , *B. Ramachandra s. Rao, E. Bhagiratha.* 1700.
- , *B. Ramachanda s. Rao, M. Srirama* 1246.
- , *C. L. Amba.* Suitability of araldite D resin in photoelastic investigations. 1726.
- , *C. Raghupathi.* Intensity measurements of ultrasonic diffraction orders. 2306.
- , *K. R. K. s. Mohanty, S. R.* 2165.
- , *K. Suryanarayana.* Rotational analysis of the columbium oxide bands. 1816.
- Columbium oxide bands. 2412.
- Rao, M. Srirama M. and Rao, B. Ramachandra.* Long-period fading in medium radio signals. 1246.
- , *M. V. K. Appa and Mitra, S.* Evidence for the charged Θ -meson. 1757.
- , *P. Srinivasa s. Mohanty, S. R.* 145, 2164.
- , *P. Tiruvenganna.* Emission band spectrum of Cl_2 . 255.
- , *P. Venugopala s. Rao, B. Ramachandra.* 1955.
- , *Ramachandra Subba and Nigam, Swami Dayal.* Effect of cross-viscosity on the performance of full journal bearing without side-leakage. 1106.
- Rapaport, E. and Weinstock, S. E.* Generator for homogeneous aerosols. 2099.
- Raphael, R. B.* Singlet S-state nucleon-nucleon potential. 188.
- Rappaport, Paul and Loferski, Joseph J.* Thresholds for electron bombardment induced lattice displacements in Si and Ge. 1434.
- , *P. s. Jenny, D. A.* 1652.
- , *I. D. s. Dobrotin, N. A.* 988.
- Raridon, Richard and Wang, P. K. S.* Tungsten L X-rays from a Be-window tube. 684.
- , *R. J. s. Wang, P. K. S.* 684.
- Rarita, W.* Analytic approach for the pion proton scattering phase shifts. 2041.
- , *William.* Scattering analysis. 244.
- Proton-proton scattering at 1 Bev. 1168.
- *s. Serber, Robert* 244.
- Rasetti, F. s. Madunsky, L.* 585.
- Raskin, Walter H. and Robertson, Alexander F.* Adiabatic apparatus for the study of self-heating of poorly conducting materials. 170.
- Rasmussen, Ebbe and Middelboe, Victor.* Spectroscopic investigations of separated krypton isotopes. 1398.
- , *J. O. and Slätis, H.* Decay scheme of Np^{238} . 591.
- , *John O., Slätis, Hilding and Passell, Thomas O.* Beta emitter Np^{238} . I. Beta spectroscopy. 1549.
- , *Stephens jr., Frank S., Strominger, Donald and Aström, Björn.* Beta emitter Np^{238} . II. Scintillation spectroscopy and coincidence studies. 1550.

- Rasmussen, J. O. s. Strominger, D. 1158.
 — Stanly W. s. Williams, John H. 975, 1375.
 —, V. K., Miller, D. W. and Sampson, M. B. Scattering of 22-Mev α particles by C^{12} . 1566.
 —, —, — and Gupta, U. C. Reactions $Be^9(\alpha, \alpha') Be^9(\alpha, d)$ and $Be^9(d, d')$. 1783.
 —, Rees, R., John Sampson, M. B. and Wall, N. S. Search for 15-Mev gamma radiation from $N^{14}+d$ and $Be^9+\alpha$. 64.
 — s. Miller, D. W. 1366, 1783, 2375.
 Rasor, N. S. Equipment and techniques for a small cryogenics laboratory. 369.
 —, Ned S. Annealing kinetics of lattice defects in evaporated copper films. 1013.
 — and Hove, John E. Thermal conductivity of neutron-damaged graphite. 1801.
 Rastogi, R. G. and Sheriff, R. M. Radio field strength observations made at Ahmedabad during the total solar eclipse on 30 June 1954. 2509.
 — s. Kotadia, K. M. 1286, 2571.
 —, R. P. Solid-liquid equilibria in binary and multi-component mixtures. 1509.
 — and Srivastava, R. C. Thermodynamics of irreversible processes applied to thermal transpiration. 1969.
 Rastrup-Anderson, John s. Bak, Borge 434.
 Ratcliffe, J. A., Schmerling, E. R., Setty, C. S. G. K. and Thomas, J. O. Rates of production and loss of electrons in the F region of the ionosphere. 1285.
 Ratner, B. s. Lejkin, E. 2017.
 Rau, Richard and Miller jr., P. H. Faraday effect in semiconductors at microwave frequencies. 1026.
 —, R. Ronald s. Arnold, W. H. 403, 938.
 — s. Ballam, J. 938.
 — s. Hodson, A. L. 395.
 Raub, Ernst und Blum, Walter. Galvanische Abscheidung von Blei-Zinn-Legierungen. 296.
 — s. Kussmann, Albrecht. 1846.
 Rauch, S. E. s. Johnson, Leo J. 2512.
 Rauh, E. G. s. Andre, C. G. 2366.
 —, Everett G. and Thorn, Robert J. Vapor pressure of uranium. 1511.
 Rausa, Gerald J. Gamma dose rate from Po-Be source. 875.
 Ravenhall, D. G. Inelastic electron scattering by carbon. 1800.
 Ravenhall, D. G. and Yennie, D. R. Phase shift analysis of high-energy electron scattering. 608.
 — s. Downs, B. W. 608.
 — s. Hahn, Beat 2394.
 — s. Heims, S. P. 608.
 — s. Yennie, D. R. 600.
 Ravilious, C. F., Farrar, R. T. and Liebson, S. H. Measurement of organic fluorescence decay times. 862.
 — s. Furlong, L. R. 1262.
 Raw, C. J. Relation between the activation energy for viscous flow and the Lennard-Jones (12,6) potential parameter, e/k . 1504.
 Rawitscher, George. Effect of the extended size of the nucleus on μ -meson pair photoproduction. 943.
 —, George H. Effect of the finite size of the nucleus on μ -pair production by gamma rays. 1527.
 Rawson, H. Oxidation resistant coatings on molybdenum and their use in glass seals for mercury lamps. 1500.
 —, Rulon, W. s. Rall, J. E. 2557.
 Ray, James D. s. Ogg jr., Richard A. 1348.
 —, M. Flow of a compressible fluid around a corner. 1246.
 —, S. s. Baral, S. S. 1286.
 — s. Saha, A. K. 1914.
 Rayburn, L. A., Lafferty, D. L. and Hahn, T. M. Gamma rays from the inelastic scattering of neutrons in aluminium, magnesium and silver. 970.
 Rayces, J. L. Petzval sum of thick lenses. 1466.
 — Computation of third-order aberrations. 1683.
 Raychaudhuri, Amalkumar. Perturbed cosmological models. 177.
 — Relativistic cosmology. I. 1494.
 — Keine Strahlungsfelder mit Zentralsymmetrie in der Allgemeinen Relativitätstheorie. 1923.
 Raymond, Francois-Henri. Structure générale d'une calculatrice numérique universelle. 184.
 Raynaud, Héliette et Pouradier, Jacques. Spectres de réflexion des précipités mixtes d'iodure et de bromure d'argent. 2204.
 Rayne, John. Specific heats of metals below one degree absolute. 1739.

- Rayner, C. B.* Effects of rotation of the central body on its planetary orbits, after the Whitehead theory of gravitation. 715.
- Whitehead's law of gravitation in a space-time of constant curvature. 1291.
- , *G. H.* and *Ford, L. H.* Effect of humidity on the stability of inductance standards. 2101.
- Raynor, G. V.* s. *Tyzack, C.* 868.
- Rayski, J.* Meaning of bilocalizability. 719.
- Bilocal interpretation of isotopic spin. 1297.
- Raz, B. J.* s. *French, J. B.* 1139.
- Read, John.* Physical aspects of the biological action of ionizing radiations. 1478.
- , *W. T.* s. *Fletcher, R. C.* 130.
- , *W. T. jr.* s. *Pearson, G. L.* 1433.
- Reagan, D. s. George, W.* 576.
- , *Darby.* Photonuclear yields of N^{17} . 2015.
- , *D. D.* Energy dependence of photo-yields of N^{17} . 576.
- s. *Barber, W. C.* 406.
- Ream, N. s. Cottrell, T. L.* 788.
- Reasbeck, P.* and *Mayne, K. I.* Cosmic radiation effects in meteorites. 1483.
- Reasbeck, P. s. Allen, R. A.* 77.
- s. *Chackett, G. A.* 766.
- Reber, Grote.* Spread F over Hawaii. 524.
- Spread F over Washington. 888.
- Rechenmann, R.* Observations des émulsions nucléaires en lumière réfléchie. 554.
- , *H.* *Zu Spandau, H.* und *Jander, Gerhart*: Simultandialyse von Ionen. 2097.
- Recknagel, Alfred.* Elektrostatisches Elektronenmikroskop. 2206.
- Recksiedler, Arthur* and *Hamermesh, Bernard.* Capture gamma-ray studies using a scintillation coincidence spectrometer. 1163.
- Reddeck, J. G.* and *Gronberg, H. C.* Color-television converter for cable networks. 2515.
- Reder, Fritz H.* and *Brown, Sanborn C.* Energy distribution function of electrons in pure helium. 143.
- Redfield, Alfred G.* Nuclear spin-lattice relaxation time in copper and aluminium. 1644.
- Redfield, David.* Recombination processes in tellurium. 473.
- Recombination processes in tellurium. 1859.
- Rediker, R. H. s. Thomas, J. E. jr.* 1652.
- Redin, R. D.* and *Danielson, G. C.* Measurement of magnetic field gradients by the Hall effect. 1420.
- , *F. P.* and *Brown, Alexander.* Infra-red study of the crystallization of polyethylene. 455.
- Redington, R. W. s. Damon, R. W.* 474.
- Redlich, Martin G.* Shell theory for the nuclei with mass 19. 945.
- Wave functions for nuclear shell theory by a variation method. 2005.
- Interactions between configurations of three nucleons in the 1d, 2s shell. 2005.
- Redman, J. K. s. Blewitt, T. H.* 1850.
- Redmond, P. J.* First 0^+ level in C^{12} and O^{16} . 1573.
- Ree, Taikyue s. Eyring, Henry.* 1941.
- Reed, Clifton W.* End-window alpha scintillation counter for low counting rates. 931.
- , *E. D.* Tunable, low-voltage reflex klystron for operation in the 50 to 60-kmc band. 1456.
- , *G. B. s. Vittorio, P. V.* 876.
- , *George W.* and *Turkevich, Anthony.* Uranium content of two iron meteorites. 1697.
- , *R. B. s. Christensen, J. H.* 1938.
- , *R. D. C.* and *McLeod, T. S.* Absorption of underwater sound by substances in process of solution. 208.
- Reeger, Ernst.* Beobachtung und Photographie von Luftspiegelungen. 2252.
- Reekie, James s. Goldstein, Louis* 1410.
- Reenpää, Yrjö.* Axiomatik der Anschauungsmannigfaltigkeit. 1491.
- Rees, J. R. s. Wall, N. S.* 601.
- , *John R. s. Rasmussen, V. K.* 64.
- , *W. T. s. Ingram, D. J. E.* 2414.
- Reese, Bruce A.* and *Graham, R. W.* Heat transfer and frictional pressure drop characteristics of white fuming nitric acid. 1960.
- , *H. jr. s. Moak, C. D.* 231.
- , *Harry jr.* Design of vibrating capacitor electrometer. 272.
- Reenes, C. G.* and *Whytlaw-Gray, R.* Low-pressure measurements of the isothermals of xenon between 0 and 40°C and the normal density of the gas. 1319.

- Reeves, Johnie L. s. Marg, Elwin. 172.
- , M. L. and Geballe, Ronald. de pre-breakdown currents in gases of high dielectric strength. 142.
- Reeves, Tricia and Palmatier, E. D. Interval distribution of cosmic-ray tracks in extensive air showers. 616.
- Regemorter, Van. Détermination de la température de la surface du soleil, par l'étude de l'intensité des raies du vanadium. 515.
- Regge, T., Okubo, S. and Marshak, R. Anti-proton. 1753.
- Regge, T. s. Mandl, F. 235, 1527.
- Reggia, Frank s. Beatty, R. W. 1419.
- Regnault, Jacques s. May, Serge. 2326.
- Regnaut, Pierre s. Goldschmidt, Bertrand. 1330.
- Rehage, G. s. Haase, R. 921.
- Reich, C. W. s. Phillips, G. C. 1542.
- , H. Absorption der neutronenerzeugenden Komponente der kosmischen Strahlung in Blei und Aluminium. 778.
- , Haskell A. s. Heberle, Juergen W. 1611.
- , K. H. s. Standley, K. J. 647.
- , K. Helmut. Technische Anwendung der ferromagnetischen Resonanz. 2109
- Reichardt, Manfred. Quecksilberdiffusionspumpen aus Glas. 193.
- Approximative Modellvorstellung der Dampfbüschelkonstitution in Diffusionspumpen. 1934.
- , W. und Lenk, A. Vierpolersatzschaltbilder der elektromechanischen Wandler. 2300.
- Reichel, Karl s. Pawlek, Franz. 1209.
- Reichelt, Walter. Veredelung und Korrosionsschutz von Oberflächen durch Hochvakuum-Bedampfung. 1272.
- Reichenberg, D. s. Hale, D. K. 381.
- Reichert, Karl †. 894.
- , Karl, Dr. 70 Jahre alt. 2255.
- Reid, Allen F. and Wilson, Ben. Collimating device for measuring gamma rays from a limited region. 2343.
- , C. s. Moodie, Margaret M. 1266.
- , J. M. and Teljer, J. C. W. Electronic rotary switch. 1515.
- and Wright, I. F. Disintegration scheme of copper-62 and its relation to recent mass measurements. 239.
- , s. Wright, I. F. 952.
- , John M. s. Wild, John J. 2224.
- Reier, Melvin and Shamos, Morris H. Neutroncapture gamma-ray spectra of V, Co, Ti, Fe, Cr, Au, Mn and I. 1582.
- Reiffel, L. Beta-ray-excited low-energy X-ray sources. 334.
- Reifman, Alfred, DeWitt, Bryce S. and Newton, Roger G. Relaxations between bound state problems and scattering theory. 1930.
- Reik, H. G. s. Schulz, G. V. 2436.
- , Helmut G. Theorie irreversibler Vorgänge. IV. 217.
- Theorie irreversibler Vorgänge. I. II. III. 1968.
- Zu: Theorie irreversibler Vorgänge. II. 2332.
- Reilly, Martin L. s. Furukawa, George T. 211.
- Reimann, H. Temperungseinfluß auf das Widerstandsverhalten von aufgedampften Wismutbolometern. 1253.
- Untersuchungen am Wismutbolometer bei rechteckig und sinusförmig modulierter Bestrahlung. 1253.
- , Heinz. Alterung des Wismutbolometers. 210.
- Reimer, Ludwig. Magnetische Untersuchungen über die Orientierungs- und Amplitudenverteilung innerer Spannungen in plastisch gedehnten Metallen. 200.
- Reinacher, Gerhard. Metallographische Untersuchung der Warmbrüchigkeit korrodierter Platin-Geräte. 870.
- Reiner, M. Complete elasticity law for some metals according to Poynting's observations. 1305.
- Reines, F. and Cowan, C. L. jr. Detection of the free neutrino. 564.
- s. Cowan, C. L. 2355.
- s. Harrison, F. B. 398.
- Reinhold, Günter. Zündeffekt an Ignitron-Zündstiften. 2488.
- Reinhold, Erna. Induktion von Keimblattveränderungen durch Röntgenstrahlen. 876.
- Reiniger, G. und Balz, G. Automatisches Zeitschaltgerät für Spektralaufnahmen. 1062.
- Reinisch, L. s. Brot, C. 2168.
- Reinkowski, D. und Knorr, C. A. Elektrolytische Chromabscheidung aus wäßriger fremdanionenhaltiger Chromsäurelösung. 833.
- Reiser, H. J. und Fischer, H. Oszillographische Studien zur irreversiblen

- Polarisation der kathodischen Nickelabscheidung. II. 660.
- Reiser, H. J. und Fischer H.* Analyse der Stromspannungskurve bei gleichzeitiger Abscheidung von Wasserstoff und Nickel. 833.
- Reisman, Elias s. Siegel, Benjamin M.* 1064.
- Reisner, J. H.* Optical system of the RCA EMU-3A electron microscope. 1069.
- Reiss, H. s. Fuller, C. S.* 1861.
- , *Howard.* Ionization of hydrogen in germanium and silicon. 1862.
- *s. Monchick, Louis.* 2450.
- *s. Morin, F. J.* 1862.
- , *Karl Hans.* Lichtmission von Hochvakuumgasentladungen. 628.
- Reissig, Magdalena und Melnick, Joseph L.* Intracellular development of Herpes-B virus. 2222.
- Reiter, Reinhold.* Bio-Meteorologie auf physikalischer Basis. 712.
- Einflüsse meteorologischer Feinvorgänge auf das Verhalten luftelektrischer Größen in verschiedenen Höhenstufen. 2248.
- Schwankungen der natürlichen Radioaktivität der Luft, Messungen in 2600 m Seehöhe in den Nordalpen. 2248.
- , *Sydney H. s. Summerfield, Martin.* 1946, 1965.
- Reistötter, J. s. Neudert, W.* 2445.
- Reitz, R. A. s. Whalin, E. A.* 775.
- Rekers, R. G. and Villars, D. S.* Flame zone spectroscopy of solid propellants. II. 1966.
- Relf, Kenneth E.* Cloud-chamber study of cosmic-ray air showers at sea level. 615.
- Remberg, Heinrich.* Empfindlichkeit der Protonen und Deuteronen für Wellenlängenunterschiede und die photoelektrischen Wirkungen der Strahlung im Zapfen. 1078.
- Rembs, Edward.* Integralformeln der Verbiegungstheorie. 372.
- Remeika, J. P. s. Holden, A. N.* 1869, 2496.
- *s. Merz, W. J.* 1869.
- Remy, E. und Sittkus, A.* Tagesgang der kosmischen Ultrastrahlung. I. 427.
- Renard, F. s. Crussard, J.* 2000.
- , *G. A.* Photons de réarrangement consécutifs à l'autoionisation, et le spectre de freinage interne du nucléide ³²P. 1160.
- Renaud, Pierre.* Effet des ultra-sons sur les solutions d'iode de potassium. 745.
- Renero, Ignacio.* Scattering by a velocity-dependent potential. 1535.
- Rennemann, Conrad jr.* Minimum drag bodies of revolution in a nonuniform supersonic flow field. 915.
- Renner, A. J. s. Breitenbach, J. W.* 2436.
- , *W.* 35. Tagung der Deutschen Röntgengesellschaft am 9. und 10. 10. 1953 in Stuttgart. 2257.
- Rennie, C. A.* Economic power from fast breeder reactors. 1330.
- Renninger, M.* Elektronendichte-Verteilung im Steinsalzgitter. 2066.
- Renton, C. A. s. Mendelsohn, K.* 820.
- Renwick, W. s. Beckett, F.* 1880.
- Repp, Gordon W., Jakobson, Mark J. and White, R. Stephen.* π^+ photomeson production at 180°. Experimental arrangement. 1341.
- Repp, Gordon W. s. White, R. Stephen.* 1341, 1525.
- Restle, Heinz s. Leube, Inge.* 871.
- Retherford, R. C. s. Maldonado, C. D.* 839.
- Rettinger, M.* Sound diffusion in rooms. 549.
- Reuber, Ellen s. Plieth, Kar.* 1898, 1899.
- Reuschel, A.* Dr. Karl Reichert 70 Jahre. 2255.
- Reuss, J. s. Wansink, D. H. N.* 1948.
- Reusse, Wilhelm und Zaubitser, Richard.* Physikalische Möglichkeiten zur Prüfung der Chrom-Arsen-Tränkung von Masten. 1267.
- Reuter, Bertold s. Stein, Rudolf.* 1036.
- Photoleitfähigkeit des Thalliumsulfids und Bleisulfids. 2477.
- Reuterswärd, Carl s. Lundén, Arnold.* 764.
- Revell, R. S. M. s. Agar, A. W.* 806, 1889.
- Reyerson, L. H. and Peterson, Lowell.* Sorption of gaseous hydrogen chloride by crystalline insulin. 2447.
- Reynolds, C. A.* Kinetic theory of liquid helium II. Heat transfer. 449.
- *s. Forstat, H.* 1197.
- , *Charles A.* Kinetic model of helium II. 1009.
- *s. Forstat, Harold.* 449.
- , *D. C. s. Czynak, S. J.* 668.
- , *D. C. s. Czynak, S. J.* 668.
- , *F. H.* Electrical manometer for gas pressures up to 40 mm of mercury. 1097.

- Reynolds, F. W. s. Collins, R. J. 475.
- , George T. Liquid scintillation counters. 227.
- and Aron, W. A. Masses of S particles. 1332.
- s. Arnold, W. H. 403, 938, 1333.
- s. Ballam, J. 938, 1332.
- s. Hodson, A. L. 395.
- s. Lint, V. A. J. van. 1133.
- s. Treiman, S. B. 561.
- , H. L. and Zucker, A. Excitation functions for nitrogen-induced nuclear reactions in carbon. 52.
- , — Excitation function for the reaction $\text{Be}^9(\text{N}^{14}, \alpha \text{n})\text{F}^{18}$. 1144.
- , — Equilibrium charge distribution of stripped 26-Mev nitrogen ions. 1373.
- , Wyly, L. D. and Zucker, A. Equilibrium charge distribution of energetic nitrogen ions. 974.
- , — Cross section for electron capture and loss by 26-Mev nitrogen ions. 1165.
- s. Cohen, B. L. 52.
- s. Zucker, A. 1165.
- , J. B. and Standing, K. G. Angular distributions of deuterons from (p, d) reactions in light nuclei. II. Lithium, beryllium, boron, fluorine and aluminum. 2365.
- , Christensen, R. L., Hamilton, D. R., Lemonick, A., Pipkin, F. M. and Stroke, H. H. Nuclear spins and hyperfine separations of Au^{198} and Au^{199} . 1808.
- s. Christensen, R. L. 1612.
- , J. M. s. Leinhardt, T. E. 645.
- , S. E. s. Workman, E. J. 528.
- , Stanley I. Test cell for measuring the dielectric strength of elastomeric materials in air. 2080.
- , W. B. s. Wicklutz, J. E. 450.
- , W. N. Surface recombination in germanium. 286.
- Reza, F. M. Synthesis without ideal transformers. 2513.
- Rhéaume, R. H. s. Cottingham, J. G. 1752.
- Rhein, W. J. Angular distribution of fast neutrons scattered from lead. 1381.
- Efficiency of zinc sulfide-plastic counters for fast neutrons. 1979.
- Rheinfurth, Mario. Farbfehler und Öffnungsfehler elektronenoptischer Zylinderlinsen. 164.
- Rhoads, H. U. s. Bryant, P. J. 1536.
- Rhoderick, E. H. s. Heron, S. 1614.
- Rhodes, E. C. s. Knight, J. R. 2545.
- , R. A. s. Kinsey, W. H. 1920.
- Rhodin, J. and Daltham, T. Ultrastructure of the epithelial cells in the trachea of the albino rat. 2223.
- Riabouchinsky, Dimitri. Remarques sur la méthode des ombres et celle des stries. 1945.
- Ribe, F. L. Pickup reactions $\text{F}^{19}(\text{n}, \text{d})\text{O}^{18}$ 1353.
- and Davis, R. W. 14-Mev (n, α) cross section in zirconium. III. 1539.
- and Seagrave, J. D. Pickup reactions $\text{B}^{10}(\text{n}, \text{d})\text{Be}^9$ for 14-Mev neutrons. 1352.
- s. Brolley, J. E. jr. 1378.
- Ricard, R. et Condamin, J. Analyse spectrographique quantitative de monnaies anciennes. 169.
- Ricci, E., Campá J. Pahissa und Nussis, N. Schweres Eisenisotop (Fe-61). 578.
- , Renato e Trivero, Giacomo. Spettro di decadimento del $^{214}_{83}\text{Bi}$. 1149.
- , R. A. e Trivero, G. Schema di decadimento del $^{214}_{83}\text{Bi}$ (RaC). 402.
- s. Demichelis, F. 1367.
- Rice, J. L. s. Berl, W. G. 2329.
- , Michael and Pound, R. V. Ratio of the magnetic moments of the stable gallium isotopes. 1766.
- , O. K. Comparison of the energy excitations in liquid He^3 and He^4 . 1409.
- s. Kohler, F. 1742.
- , Philip. Combined slow-wave circuit and beam focusing structure. 986.
- , S. O. s. Bennett, W. R. 2501.
- , William E. s. Mason, Edward A. 1499.
- Rick., Alexander. Use of the Sénarmont compensator for measuring double refraction of flow. 857.
- , J. A. and Webber, S. E. Ferrite attenuators in helices. 1675.
- Richard, James A., Hudspeth, Emmett L. and Clendenin, William W. Excitation curve for $\text{C}^{14}(\text{d}, \text{p})\text{C}^{15}$ and properties of C^{15} . 52.
- Richards, D. A. s. Griffiths, L. J. 1638.
- , Hans Kohn and Denman, Eugene D. Measurement of ionizing radiation by frequency variation using ferroelectric material. 1276.
- , H. T. s. Galonsky, A. 959.
- , N. E., Brauner, E. J. and Bockris, J. O'M. Determination of the velocity of ultrasonic sound in molten salts. 740.

- Richards, Paul I.* Multiple isotropic scattering. 1585.
- , *R. E. s. Deeley, C. M.* 278.
- Richardson, A. E. s. Allison, M.* 2362.
- , *E. G.* Sounds of impact of a solid on a liquid surface. 22.
- Mechanism of the disruption of liquid jets. 205.
- Industrial applications of ultrasonics. 1073.
- Ultrasonic apparatus for recording the height of water waves in model ship tanks. 1945.
- *s. Busby, J.* 2449.
- *s. Ghabrial, A. M.* 2298.
- , *J. Reginald s. Burki, J. W.* 1797.
- , *Jasper E. and Brucer, Marshall.* Modification of electron filter to improve light localization of a cobalt-60 beam. 1278.
- , *J. Reginald s. Caldwell, David C.* 975.
- *s. Glass, Neel W.* 963.
- *s. Green, David.* 59, 2372.
- *s. Handler, Harry E.* 592.
- *s. Pyle, Robert V.* 1752.
- , *W. S.* Microstructure of diene polymers. III. Polyisoprenes and polybutadienes prepared with cationic catalysts. 2437.
- Richter, B. s. Bitter, F.* 97.
- , *C. F. s. Gutenberg, B.* 1699.
- , *Gisela s. Wendel, Georg.* 2478.
- , *H. und Müller, W.* Tschaplyginischen Hodographenmethode bei Unterschallströmungen mit Zirkulation. 1505.
- , *Breitling, G. und Herre, F.* Struktur des glasigen B_2O_3 . 262.
- *s. Breitling, G.* 104.
- *s. Frohnmeyer, G.* 1819.
- , *H. G. s. Debs, R. J.* 55.
- *s. Halpern, I.* 55.
- , *Hans-Ulrich.* Anlage zur Bestimmung von Dampfdrücken bis unter 10^{-5} Torr. 1933.
- , *Harold G. and Coryell, Charles D.* Low-energy photofission yields for U^{238} . 1775.
- , *M. s. Becherer, G.* 1000.
- , *Manfred.* Farbenseh-Prüfungen in färberischen Betrieben. 2555.
- Farbkörper des DIN-Farbensystems. 2555.
- , *N.* Helligkeitsausbrüche des Kometen 1925 II und ihre Zusammenhänge mit der Sonnentätigkeit. 350.
- Rickard, E. F. s. Metson, G. H.* 1662.
- , *R. R. s. Lyon, W. S.* 1780.
- Rickayzen, G. s. Hilsum, C.* 1432.
- Riddell, R. J. jr.* Number of Feynman diagrams. 363.
- *s. Fried, B. D.* 366.
- Riddiford, L.* Air-cored synchro-cyclotron for 400 Mev protons. 2346.
- and *Butler, S. T.* Origin of cosmic rays in solar or stellar disturbances. 2043.
- *s. Ledley, B.* 233.
- Riddlestone, Janet.* Low-voltage, short-duration arcs between separating contacts in low-voltage, substantially non-inductive circuits. 148.
- Riddoch, A. s. Leck, J. H.* 1721.
- Rideal, Sir Eric s. Davies, J. T.* 270.
- *Eric. s. Iha, Sampat Dayal.* 2081.
- , *Sir Erich s. Phillips, J. N.* 460.
- , *E. K. s. Gilbert, G. A.* 2157.
- Rideau, Guy.* Quatrième relation d'incertitude. 361.
- Rider, J. G. s. Thompson, N.* 1503.
- , *John A. s. Jaffé, George.* 2147.
- Ridgway, S. L. and Collins, George B.* Evidence for gamma rays from hyperons or heavy mesons produced by cosmotron protons. 937.
- Ridley, E. Cicely.* Interpolation of atomic fields. 189.
- Self-consistent field for Mo^+ . 189.
- Ridolfo, Virginia C. s. Cheng, L. S.* 580.
- Riebel, Frank A.* Efficiency of red goggles. 2559.
- Rieckmann, E.* Isochronismusmessungen an Pendeln, experimenteller Beitrag zu Berechnungen von M. Gary über Pendelfedern. 1725.
- , *Paul s. Oberst, Hermann.* 2552.
- Riede, D. s. Hanle, W.* 2051.
- Riedel, H.* Fernsprech- und Rundfunkstörungen. 1490.
- Rieder, Georg.* Spannungen und Dehnungen im gestörten elastischen Medium. 1939.
- , *Werner s. Millian, Kurt.* 1242.
- Riehl, N.* Lichtbogen hoher Leuchtdichte mit Thoriumoxyd als Anode. 1048.
- und *Ortmann, H.* Elektronen-Anlageungsstellen sehr geringer energetischer Tiefe in Zinksulfid. 692.
- Aufbau des lumineszierenden Zinkoxyds. 1470.
- Rienäcker, Walter.* Bimetalle. 2102.

- Ries, J. s. Wachsmann, F. 344.
- Rieskamp, Karl Heinz s. Oelsen, Willy. 865.
- Rietjens, L. H. Th. and Bold, H. J. van. den. Gamma radiation in the decay of ^{67}Ga . 2381.
- Arkenbout, G. J., Wolters, G. F. and Kluyver, J. C. Influence of the distance between source and crystal on the detection-efficiency of a gamma-scintillation spectrometer. 1122.
- Riety, Paul. Retour sur la théorie du thermophone à feuilles d'or. 548.
- Retour sur la théorie du thermophone à feuilles d'or. 740.
- Riezler, W. und Werz, R. Kontinuierliche Nebelkammer. 1976.
- s. Porschen, W. 1350, 2362.
- Rigg, M. Wesley s. Voltz, Sterling E. 2086.
- T., Stein, G. and Weiss, J. Action of X-rays on ferrous and ferric salts in aqueous solutions. 1068.
- , Tyson s. Kelly, Patrick. 985.
- Rightmire, R. A. s. Simanton, J. R. 59, 591.
- Rihaczek, A. s. Meinke, H. 1436.
- Rikitake, Tsuneji. Method of studying the distribution of electric currents in a spherical shell having non-uniform conductivity. 354.
- Regional anomaly in the earth's magnetic field. 354.
- Temperature distribution within the earth. 354.
- Electromagnetic induction within the earth and its relation to the electrical state of the earth's interior. I. II. III. IV. 354, 355.
- Electromagnetic shielding within the earth and geomagnetic secular variation. 356.
- Changes in the earth current and their relation to the electrical state of the earth crust. 356.
- Diffraction of electromagnetic waves around the crater of volcano Mihara. 356.
- and Kishinouye, Fuyuhiko. Electrical properties of soil at radio frequencies. 356.
- Geomagnetic secular variation and motion of the earth's core. 2567.
- Riley, D. P. s. Arndt, U. W. 1691.
- Rimbert, Francine. Spectrographie pour l'étude, dans le temps, des étincelles. 313.
- Rimondi, O. s. Brini, D. 125, 680, 1324.
- Rimsaite, Y. s. Hawley, J. E. 504.
- Rimsky, A., Oberlin, A. et Ceccaldi, P. F. Diagnostic cristallographique des silico-ses pulmonaires. 171.
- Rinehart, James F. and Farquhar, Marilyn Gist. Functional implications of the fine structure of the renal glomerulus. 2223.
- , John S. s. Pearson, John. 21.
- , M. s. Ammiraju, P. 1386.
- s. Sargent, C. P. 1344, 1526.
- , M. C., Rogers, K. C. and Lederman, L. M. Scattering of negative pions near 15 Mev in hydrogen. 1602.
- , —, — Diffusion chamber study of very slow mesons. III. Scattering of negative pions in hydrogen. 1603.
- Ring, Charles E. s. Fischer, Robert B. 1894.
- , J. s. Barnes, S. W. 1602.
- , S. O. and Litz, L. M. Excitation function for Na^{22} from deuterons on aluminium. 403.
- Rioy Sierra, Carlos Sánchez del and Telegdi, Valentine L. Inelastic nuclear scattering of photons by Rh^{103} . 54.
- Riou, M. s. Bouchez, R. 2382.
- Risberg, Eilif s. Andersen, Flemming 431.
- , Percy. Spectrum of singly-ionized magnesium, Mg II. 1804.
- , Vidar. Method for calculation of scattering phase shifts. 1587.
- Risco. Modifications vectorielles inhérentes à l'effet Doppler pour des ondes se propageant dans un milieu diélectrique. 321.
- Ritchie, A. B. and Spragg, W. T. Set of parts for the remote handling of radioactive substances. 2021.
- , R. H. s. Birkhoff, R. D. 1181.
- , Blackstock, A. W. 1608.
- s. Neufeld, Jacob. 1443, 1584.
- Ritson, D. s. Fung, S. 1521.
- s. Iloff, Edwin L. 1756, 2353.
- , D. M., Odian, A., Feld, B. T. and Wattenberg, A. Spin of the τ^+ meson. 1994.
- , Pevsner, A., Fung, S. C., Widgoff, M., Zorn, G. T., Goldhaber, S. and Goldhaber, G. Characteristics of K^+ -particles. 1995.
- s. Feld, B. T. 2016.
- s. Kaplan, M. F. 987.
- , David M. s. Lannutti, Joseph E. 1997.

- Ritter, H. A. s. Kirchner, F. 1203.
- Ritti, Arlette s. Blet, Georges. 1863.
- Rittner, Edmund S. Simultaneous transport of heavy and light holes in semiconductors with a degenerate valence band. 1653.
- Ritzi, M. s. Höcker, K.-H. 92.
- Rivier, D. Variation thermique de la constante extraordinaire de Hall des ferromagnétiques. 2466.
- Riviere, A. C. and Treacy, P. B. Design of a multiple-wire proportional counter and its use in the study of the α -particles from the reaction ${}^7\text{Li} + p$. 1973.
- Rivière, J. J. la s. Kuijten, L. H. 1243.
- Rizza, Giovanni Battista. Estensione al caso di n variabili del metodo diretto degli operatori funzionali. 1491.
- Roach, G. E. Observational results in airglow photometry. 1284.
- , J. F. s. Firl, T. E. 2479.
- Roat, W. F. s. Aulter, S. H. 863.
- Roba-Thilly, J. s. Defay, R. 2445.
- Robbins, A. B. $\text{Li}^7(\alpha, n)\text{B}^{10}$ reaction. 952.
- s. Doyle, W. T. 1542.
- , Jacob s. Rall, J. E. 2557.
- Robert, J. s. Bouchez, R. 2006.
- , Jean s. Tobailen, Jacques. 2371.
- Robertis, E. de and Franchi, C. M. Observations on the submicroscopic vesicular component of the synapse. 2222.
- Roberts, B. W. Neutron diffraction study of VD_2 . 1405.
- s. Kasper, J. S. 2104.
- , Donald E. and Mandelkern, Leo. Nature of stark rubber. 1413.
- , D. F. T. and Someren, E. H. S. van. Monitor circuit for a spectrographic a. c. arc source. 2201.
- , J. H. s. Peshkin, M. 1381.
- , K. V. Electromagnetic field in a Lagrangian quantum theory. 187.
- , L. D. and Lavallo, D. E. Anomalous magnetic behavior of UI_3 from 1—4.2°K. 2457.
- and Murray, R. B. Crystalline electric field splitting effects in antiferromagnetic transitions. 646.
- s. Dabbs, J. W. T. 50, 1348, 1534.
- s. Murray, R. B. 646.
- s. Wilkinson, M. K. 469.
- , L. E. J. Oxides of uranium. V. Chemisorption of oxygen on UO_2 and on $\text{UO}_2\text{-ThO}_2$ solid solutions. 269.
- Roberts, L. M. and Fray, S. J. Theory for solid-backed bolometers. 2194.
- s. Parkinson, D. H. 210.
- , R. W. Magnetic characteristics of cores in amplifiers. 2503.
- , S. Optical properties of metal surfaces. 2112.
- , T. D. M. s. Andrew, A. M. 117.
- , Thomas R. and Sydoriak, Stephan G. Thermodynamic properties of liquid helium three. I. Specific heat and entropy. 1197.
- , V. s. Lawson, W. D. 290.
- , W. O. and Trotter, D. E. Solar prominences and geomagnetic disturbance. 707.
- Robertson, Alexander F. s. Raskin, Walter H. 170.
- , H. s. Hochberg, S. 83.
- , Harry S. Periodic phenomena in direct-current glow discharges. 1234.
- , J. David. Ultrastructure of a reptilian myoneural junction. 1902.
- Ultrastructure of crayfish giant synapses. 2223.
- , J. K. Teaching of physics to premedical students. 1919.
- , R. E. s. Glew, D. N. 855.
- , S. D. Ultra-bandwidth finline coupler. 2514.
- Robeson, Andrew s. McMillan, D. R. 548.
- Robillard, T. R. s. Goldwasser, E. L. 1172.
- Robin, J. Application des techniques de diffraction des rayons X à la détermination des domaines de stabilité de quelques oxydes mixtes métalliques et étude de leurs propriétés physiques. 169.
- , Jean s. Coulon, Roger. 2057.
- , M. Débitmètre électromagnétique. 2290.
- , R. s. Tirouflet, J. 1440.
- , Stéphane. Étude spectrographique de la dissolution du phénanthrène dans les gaz comprimés. 438.
- s. Galatry, Louis. 1618.
- Robins, W. H. M. Significance and application of shape factors in particle size analysis. 2093.
- Microscope method of measuring thicknesses of fine particles. 2094.
- , A. M. s. Lambert, J. D. 16.
- , B. G. s. Buchanan, T. J. 1902.
- , Berol L. and Fink, Richard W. Electromagnetic radiations of Cs^{132} . 597.
- s. Eggs, William C. 1582.

- Robins, Berol L. s. Fink, Richard W. 966.
- , Conmar and Bott, M. J. Optical rotation and chain folding in synthetic polypeptides and gelatin. 2441.
- , C. S. s. Leiss, J. E. 1340, 1343.
- , D. W. Apparatus for the measurement of dynamic mechanical properties of polymers over a wide temperature range. 264.
- Experimental determination of the melting curves of argon and nitrogen into the 10 000 atm region. 1320.
- s. Thomas, D. A. 1202.
- , F. N. H. Space charge smoothing of microwave shot noise in electron beams. 2180.
- and Haus, H. A. Analysis of noise in electron beams. 1667.
- s. Daniels, J. M. 2358.
- s. Haus, H. A. 2186.
- , G. Separations on 8-hydroxyquinoline columns. 370.
- , G. C. Aluminium electrolytic capacitors and development of a new type of aluminium oxide capacitor. 274.
- , G. P. s. Lamphere, R. W. 1985.
- , Hugh G. Quadrupole spectrum of BiCl_3 . 2107.
- , John E. Electronic relaxation time in graphite. 133.
- , K. and Steward, E. G. Summarized proceedings of a Conference on the Structures and Textures of Metals — London, October, 1954. 1706.
- , Keith. Structure of $\beta(\text{AlMnSi})\text{-Mn}_3\text{SiAl}_9$. 1004.
- , Kenneth W. Timing measurements on penetrating cosmic ray showers. 1390.
- , Electronic detection of heavy mesons. 1992.
- , Miriam A. s. Goodman, Edmund N. 697.
- , N. P. Measurements of the effect of rain, snow and fogs on 8.6 mm radar echoes. 307.
- , N. W. Elektronische Blitzlampen. 2533.
- , R. O. A. α^3 corrections to the ground state of helium. 1931.
- , W. H., Li, Yin-Yuan and Smoluchowski, R. Small-angle scattering of X-ray by irradiated diamond. 777.
- Robson, A. E. and Engel, A. von. Excitation processes and the theory of the arc discharge. 672.
- , B. A. s. Mohr, C. B. O. 2387.
- , J. M. Angular correlation in the beta decay of the neutron. 1529.
- , J. W., Stearns, R. L. and Gregg, E. C. Emergent electron distribution resulting from bremsstrahlung incident on a thin scatterer. 607.
- s. Stearns, R. L. 558.
- Rocco, Gregory s. Petrow, Henry G. 1544.
- Roche, A. Exposé sommaire des études relatives à l'aimantation des matériaux volcaniques. 2238
- Rochester, G. D. s. Amaldi, E. 235.
- s. Macpherson, I. 393.
- Rocklin, Sol s. Yuster, Philip. 1126.
- , S. R. s. Andre, C. G. 2366.
- Rockstuhl, F. G. R. Method of analysis of fundamental and overtone crystal-oscillator circuits. 2453.
- Rodeback, G. W. Imperfections in copper in terms of electrical resistivity and thermoelectric power. 1850.
- Rodenhuis, K. s. Overbeek, A. J. W. M. van. 34.
- Roderick, H., Lönsjö, O. and Meyerhof, W. E. Decay scheme of the mirror nucleus P^{29} and related results. 72.
- Rodesch, J., Jaudel, Mlle. C., Chirpaz, B. et Mandel, P. Action d'une dose unique de rayons X, administrée en irradiation totale ou locale, sur les acides nucléiques de la moelle osseuse chez le rat blanc. 875.
- Rodevald, Martin. Normalwerte und Abweichungen der Meerestemperaturen bei den nordatlantischen Wetterschiffen. 2578.
- Rodionow, Ss. F., Chaikin, M. Ss. und Schalnikow, A. I. Selbstausslöschung von Lichtzählern. 314.
- Rodney, William S. Optical properties of cesium iodide. 1884.
- and Spindler, Robert J. Refractive index of cesium bromide for ultraviolet, visible, and infrared wavelengths. 1255.
- Roe, G. M. and Stark, R. H. Numerical solution of the diffusion equation in cylindrical geometries. 110.
- , Glenn M. s. Epstein, Leo F. 214.
- Röck, H. Messungen und Betrachtungen zur Frage des Grenzverlaufes der Aktivitätskoeffizienten binärer Gemische. 923.
- Röckert, H. Microradiographic studies of teeth. 1273.

- Roederer, B. Massenbestimmung an geladenen Teilchen in kernphotographischen Emulsionen mittels der Methode der variablen Zellen. 2341.
- Rochrich-Goussu, O. Mesure d'activité des émetteurs α par ciné-nucléographie. 1120.
- Röhsler, K. s. Kratky, O. 2431.
- Römer, J. Bildspeicherröhre für die Radartechnik. 2518.
- Roeper, E. Schlierenblende. 157.
- Röpke, H. s. Neudert, W. 2445.
- Rösch, M. Hydratbildung von Polyglykolätherlösungen anomaler Zähigkeit. 2449.
- , Siegfried. Gleichhelle Farben. (Farbmetrische Betrachtungen.) 2556.
- Roesch, W. C. s. DePangher, J. 1515.
- Rösener, Wolfgang s. Heumann, Theo. 139, 660.
- Rösinger, S. s. Breiðling, G. 1693.
- Roesler, F. C. Indentation hardness of glass as an energy scaling law. 1076.
- Applications of Fourier series in the numerical treatment of linear behaviour. 1091.
- Roessler, E. Beständige Feldstärken unter 10 m Wellenlänge weit hinter dem Horizont. 847.
- Rössler, F. Optische Eigenschaften von Rußteilchen. 2529.
- Streuung von Dunsttröpfchen. 2530.
- s. Behrens, H. 1506.
- Rösner, Oskar. Einfluß verschiedener Ätzmittel auf Germanium. I. Chemische Wirkung einiger Agenzien auf Germanium. 1217.
- Rötger, Helmut. Darstellung der Temperatur-Zeitabhängigkeit der Nachwirkungserscheinungen bei Gläsern und Berechnung des Temperaturkoeffizienten für den nachwirkungsfreien Elastizitätsmodul des Glasgerüsts. 2075.
- Roger, Frédéric. Application de la méthode de couplage des constituants à la détermination de la première bande d'absorption des substitués alcoylés de l'éthylène. 1191.
- Rogers, D. C. s. Pohl, W. J. 683.
- , E. C., Page, E. B. and Harriss, V. G. Servo-mechanism for the study of self-extinction of gaseous discharges in cavities in dielectrics. 1231.
- , F. T. jr. General relations in a fluid convection theory. II. 381.
- Rogers, F. T. jr. Relations in a fluid convection theory. I. Similarity theory for flow onset. 1944.
- s. Langford, F. L. 631.
- s. Rogers, Marguerite M. 1732.
- , G. E. s. Farrant, J. L. 2083.
- , J. L. s. Henry, W. G. 1848, 2109.
- , K. s. Sargent, C. P. 1344.
- , K. C. s. Ammiraju, P. 1386.
- s. Rinehart, M. C. 1602, 1603.
- s. Sargent, C. P. 1526.
- , M. H. Propagation and structure of shock waves of varying strength in a self-gravitating gas sphere. 1949.
- , Marguerite M. and Rogers, F. T. jr. Special stopping-power laws. 1732.
- , P. S. s. Lawson, J. D. 1250.
- , S. E. s. Plester, D. W. 1741.
- , William A. and Biondi, Manfred A. Doppler broadening of spectral lines emitted during dissociative recombination. 667.
- Roggen, A. van and Vroom, R. A. Apparatus for the measurement of the lifetime of phosphorescence phenomena. 325.
- Roggenkamp, P. L. s. Pruett, C. H. 1365.
- , Paul L. s. Bolotin, Herbert H. 1550.
- Rogosa, G. L. and Peed, W. F. U_L X-ray transition from separated isotopes. 96.
- Rogozinski, A. Procédé permettant d'accroître la hauteur de la zone sensible d'une chambre à diffusion. 756.
- s. Picard, R. 929, 1975.
- Rohatschek, Hans. Theorie der Gravitophotophorese. 2189.
- Kräfte der reinen Photophorese und der Gravitophotophorese. 2190.
- Rohloff, E. Optische Untersuchung der plastischen Verformung von Silberchlorid. 373.
- Rohmer, R. et Freymann, R. Chimie des défauts de réseau. Cas de l'oxyde de zinc. 2070.
- , Raymond. Chimie des défauts de réseau. 259.
- Rohr, R. C. and Birkhoff, R. D. K-shell internal conversion coefficients. 1370.
- Rohrbach, Christof s. Kochendörfer, Albert. 1074.
- Rohrer, R. H., Bauley, J. B. and Furr, A. K. Performance of a cathode-ray tube coincidence discriminator. 553.
- Rohrlieh, F. Infrared divergence in bound state problems. 538.

- Rohrlich, F. Analysis of the first short period and its isoelectronic sequences. 1609.
- and Jauch, J. M. Infrared divergence. 538.
- and Joseph, J. Electron to pair production in atomic hydrogen. 1130.
- Rojansky, V. Quantum-mechanical operators. 537.
- Rojo, Onofre, Hakeem, M. A. and Goodrich, Max. Relative number of gamma rays from Po^{210} . 1580.
- Rölfe, J. Determination of base thickness in alloy junction transistors by etching. 1437.
- , J. A., Sheppard, D. E. and Woodward, L. A. Raman spectra of complex cadmium and mercuric halide anions in solution. 1188.
- Roll, Hans Ullrich. Temperaturmessungen nahe der Wasseroberfläche. 2578.
- Wellenmessungen im Mündungsgebiet der Elbe. 2579.
- Größenunterschiede der Meereswellen bei Warm- und Kaltluft. 2579.
- , Ulrich. Scheinbare Anomalie der Temperaturdifferenz Luft-Wasser. 2581.
- Rollin, B. V. and Petford, A. D. Electrical properties of indium antimonide at low temperatures. 1033.
- Rollor, E. A. s. Bracken, J. T. 1976.
- Roman, W. and Akehurst, C. Determination of moisture in gases. 218.
- Romand, Jacques s. Granier-Mayence, Mine Janine. 448.
- Romanko, J. s. Welsh, H. L. 2056.
- Romanoff, Melvin s. Denison, Irving A. 2219.
- Romberg, W. und Viervoll, H. Darstellung eines Kurvenstückes durch wenige Exponentialfunktionen (Differentialgleichungsmethode). 1491.
- Romer, R. H. and Dicke, R. H. Reduction of Doppler width of microwave lines. 1817.
- , — High-resolution microwave spectroscopy. 2192.
- Romero-Juárez, A. and Hefferan, J. Systematic application of physical and mathematical methods to the exploitation of Mexican oil fields. 1916.
- Romie, F. E. s. Kreith, F. 923.
- Romualdi, James P., Chang, Chiao-Lin and Peck, Charles F. jr. Fatigue testing machine for range of stress. 1267.
- Ronchi, Laura. Geometrical optics of toroidal junctions in configuration lenses. 1466.
- e Francia, Giuliano Toraldo di. Calcolo del momento di rotazione del campo elettromagnetico in una guida d'onda. 1876.
- s. Carrara, Nello. 1093.
- , Lucia s. Ercoles, Anna Maria. 2554.
- , V. Kritik an den Grundlagen der Optik des 17. Jahrhunderts. 2519.
- Rooksby, H. P. Changes in the structure of oxide cathodes at high temperatures. 483.
- Roos, André. Etude de l'oxydation anodique des fontes et mesure de la vitesse d'oxydation anodique par réflectométrie photo-électrique. 2220.
- , B. W. s. Cohen, E. G. D. 2336.
- , Charles E. Auger effect in iron, nickel, copper, zinc. 1804.
- Roosbroeck, W. van. Theory of the photomagnetolectric effect in semiconductors. 1026.
- Theory of the photomagnetolectric effect in semiconductors. 2116.
- s. Pfann, W. G. 135.
- Roosdorp, H. J. Automatische Meßbrücke zum Gebrauch in der Industrie. 1016.
- Ropp, Gus A. and Neville, O. Kenton. Uses of isotopic carbon in organic chemical research. 1750.
- and Raaen, Vernon F. Effect of ring substituents on the isotope effects in reactions of carbonyl- C^{14} esters and ketones. 1141.
- Roquet, Mlle Juliette. Aimantations thermorémanente et rémanente du sesquioxide de fer et de la magnétite. 2241.
- , R. s. Bayard, M. 1514.
- Rorschach, H. E. jr. and Houston, W. V. Nuclear paramagnetism of liquid helium-3. 2075.
- s. Muench, N. L. 1648.
- s. Swim, R. T. 634.
- Rosa, Richard J. Shock wave spectroscopy. 376.
- Rose, A. Space-charge-limited currents in solids. 651.
- s. Cope, A. D. 1057.
- s. Smith, R. W. 651.
- , Adolf und Strassburg, Werner. Einfluß der Austenitisierungstemperatur auf das Umwandlungs- und Härungsverhalten der Baustähle. 2213.

- Rose, Albert. Recombination processes in insulators and semiconductors. 500.
- Form and thickness of trap-dominated space-charge layers. 2467.
- and Sanders, William W. Vertical umbrella-type agitator to promote smooth boiling in vacuum distillation. 1112.
- , Johnson, R. Curtis and Heiny, Richard L. Computers, statistics and mathematics. 714.
- , A.-J. et Barraud, J. Focalisation ponctuelle d'un faisceau de rayons X. 2065.
- , B. s. Brinkworth, M. J. 2034.
- , D. C. and Katzman, J. Latitude effect on the nucleon and hard components of cosmic rays. 249.
- , — Geomagnetic latitude effect on the nucleon and meson component of cosmic rays at sea level. 2401.
- s. Geiger, K. W. 1355.
- , D. G. s. Gucker, F. T. 2095.
- , D. J. Magnification and resolution of the field emission electron microscope. 1259.
- , David J. and Brown, Sanborn C. High-frequency gas discharge plasma in hydrogen. 1049.
- , É. Coefficients de conversion de la couche L. I. 2385.
- , F. W. G. and Sandiford, D. J. Derivation of the hole lifetime in an n-type semiconductor with acceptor traps. 649.
- and Timmins, E. W. Method of estimating impurity concentrations in germanium. 287.
- s. Ransom, P. 2470.
- , H. s. Holmes, J. E. R. 1329.
- , H.-J. s. Kamke, D. 1441.
- , Harry M. s. Morgan, Councilman. 2222.
- , Jerzy E. s. Dowben, Robert M. 2142.
- , Kenneth. Clad metals made by vacuum brazing. 2220.
- , M. E. Analysis of angular correlation and angular distribution data. 76.
- Gauge problem in internal conversion. 1580.
- s. Biedenharn, L. C. 1495.
- s. Brysk, H. 412.
- , N. W. s. Kotschin, N. J. 1705.
- , P. H. s. Chapman, K. R. 422.
- Rose-Innes, A. C. and Broom, R. F. Simple desorption system for obtaining temperatures above that of liquid helium. 1303.
- Rosen-Innes, A. C. s. Kainer, H. 276.
- Rosen, A. s. Forster, H. H. 242, 1153.
- , L. s. Frye, G. M. jr. 578, 1540.
- , Louis and Stewart, Leona. Experimental checks of the statistical theory of nuclear reactions. 1771.
- , Nathan. Special theories of relativity. 536.
- Theories of relativity. 1923.
- , P. s. Berl, W. G. 2329.
- , Philip. Variational principles for irreversible processes. 384.
- s. Margenau, H. 1400.
- , Saul and Eldert, Cornelius. Least-squares method for optical correction. 1683.
- Rosenberg, R. and Lax, M. Validity of deformation-potential theory in n-type Ge. 1649.
- Rosenbaum, B. M. s. Welber, B. 1897.
- , J. H. s. MacGillavry, D. 2481.
- , O. und Neuert, H. Bildung stabiler negativer Ionen in einigen Gasen und Dämpfen bei Elektronenstoß. 440.
- Rosenberg, A. and Winegard, W. C. Crystal growth phenomena in high-purity lead. 629.
- , Jerome s. Gaffron, Hans. 1905.
- , Samuel J. and Irish, Carolyn R. Solubility of carbon in 18-percent-chromium-10-percent nickel austenite. 2543.
- Rosenblatt, David B. Effects of a primeval endowment of U^{236} . 553.
- , D. B. s. McReynolds, A. W. 986.
- Rosenblum, B. and Nethercot, A. H. jr. Microwave spectra of tritium iodide and tritium bromide. 786.
- , E. S. s. Dexter, R. N. 131.
- , Salomon. Spectres de rayons α . 771.
- s. Frilley, Marcel. 569, 1769.
- Rosenbluth, Arianna W. s. Rosenbluth, Marshall N. 2263.
- , Marshall N. and Rosenbluth, Arianna W. Monte Carlo equations of state. 2263.
- Rosenbrock, H. H. Method for obtaining transient response from frequency response. 543.
- Integral-of-error-squared criterion for servo mechanisms. 1501.
- Rosendorf, S., Stahl, R. and Yekutieli, G. Mass of fast K-particles. 562.

- Rosendorff, S. s. Eisenberg, Y. 2001.
 — s. Lipkin, H. J. 774.
- Rosenfeld, A. H. Production of charged pions from hydrogen and carbon. 395.
 — Production of pions in nucleon-nucleon collisions at cyclotron energies. 396.
 — s. Warshaw, S. D. 1353.
- , L. Problèmes d'interprétation en électrodynamique quantique. 2268.
- Rosenhagen, Justus. Dämmerungsmessungen auf See. 2584.
 — Begriff der astronomischen und bürgerlichen Dämmerung. 2584.
- Rosenhead, L. Society and the calculating machine. 2263.
- Rosenstock, Herbert B. Optical properties of solids. 448.
- Rosenthal, A. H. Color control by ultrasonic wave gratings. 1739.
 —, H. s. Lipson, S. 1099.
- Rosencasser, Hyman and Levy, Paul W. Radiation induced coloring of sodium azide. 1824.
 — s. DeJuren, James A. 981.
- Rosenzweig, N. s. Ferentz, M. 76.
- Rosencare, W. E. and Poore, L. Thermodynamics of the mechanical properties of cellulose fibers. 1414.
- Ross, Irving s. Nicholson, William Q. 2196.
 , I. M. and Saker, E. W. Applications of indium antimonide. 293.
 and Thompson, N. A. C. Amplifier based on the Hall effect. 1227.
 — s. Barlow, H. M. 1227.
 —, J. s. Andur, I. 2414.
 —, J. F. s. Hine, G. J. 344.
 , L. W. Accuracy of solar-flare observations. 2560.
 —, M. Theory of pion photoproduction. 47.
 , Marc. Meson-meson interaction in meson scattering. 90.
 , M. A. S., Cochran, A. J., Hughes, J. and Feather, N. Fluorescence yields of the L levels of Bi. 412.
 s. Peat, S. W. 402.
 , Marion A. S. s. Zajac, Barbara. 930.
 , Sydney and Cutillus, M. J. Transmission of light by stable foams. 2093.
 and Winkler, Werner. Physical adsorption. VIII. Monolayer adsorption of argon and nitrogen on graphitized carbon. IX. Sub-critical and supra-critical adsorption isotherms for krypton monolayers on graphitized carbon. black. 2088, 2089.
- Rossel, J. s. Berthet, H. 762.
 — s. Zangger, Cl. 769.
- Rosselet, Ph., Weill, R. et Gailloud, M. Production d'un hyperfragment par capture d'un hypéron négatif. 1999.
- Rosser, W. G. V. s. Lock, W. O. 768.
 — s. Muirhead, H. 1357.
- Rossi, A. s. Colombo, S. 599.
 —, B. s. Amaldi, E. 235.
 — s. Bridge, H. S. 44, 1135.
 — s. DeStaebler, H. jr. 44, 1337.
 —, G. s. Bonetti, A. 1339.
 —, H. H. s. Ellis, R. Hobart jr. 415.
- Rossini, Frederick D. s. Mair, Beveridge J. 726.
- Rossmann, M. G. and Yarwood, J. Accuracy of the Knudsen effusion method for measuring vapor pressures. 2318.
- Rossmay, G. s. Mecke, R. 997.
- Rosswog, K. s. Mecke, R. 2167.
- Rost, U. Viskositäts-Temperatur-Verhalten von Flüssigkeiten. 1504.
 —, Ulrich. Viscosität-Temperatur-Verhalten von Schmierölen. I. Prüfung der Brauchbarkeit der Vogel-Cameron'schen Formel für die Darstellung des V.T.-Verhaltens. II. Viscosität-Temperatur-Diagramm nach Vogel-Cameron. III. Mittleres Viscosität-Temperatur-Verhalten der Öle. 1900, 1901.
- Rostagni, A. Prefazione. Rendiconti del Congresso Internazionale sulle particelle instabili pesanti e sugli eventi di alta energia nei raggi cosmici tenui a Padova nei giorni 12—15 Aprile 1954. 1090.
- Rostoker, Norman and Ekstein, Hans. Quantum theory of noise. 384.
 —, N. s. Brophy, J. J. 134.
 —, Norman s. Ekstein, Hans. 384.
- Rotariu, G. J., Fraga, D. W. and Hildebrand, J. H. Density of n-octane and 2,2,3,3-tetramethylbutane at low temperatures. 1099.
- Rotblat, J., Catala, J. and Gibson, W. M. Range-energy relation for protons and alpha-particles in photographic emulsions for nuclear research. 1977.
 s. Freemantle, R. G. 409, 416.
- Rotenberg, A. and Spruch, L. Interaction contribution to nuclear isomerism. 366.

- Rotenberg, M.* Nuclear Hartree-Fock calculations. 1531.
- Roth, E. s. Lecomte, J.* 765.
- , *F. L. s. Martin, G. M.* 1415.
- , *H.* Pressure distribution on a wall under impact of a subsonic gas jet. 734.
- , *J. F.* Verbrennung, Initiiierung, Detonation und Explosion. 217.
- , *K. W. s. Ellyett, C. D.* 1697.
- , *Laura s. Lax, Benjamin.* 821, 1649.
- , *Wilfred.* Vibratory gyro mass flowmeter. 914.
- Rothe, H.* Heinrich Barkhausen †. 1489.
- , *W. s. Dialer, K.* 924.
- Rothfus, R. R. and Monrad, C. C.* Correlation of turbulent velocities for tubes and parallel plates. 737.
- Rothhardt, Ludwig.* Assoziation in binären Flüssigkeitsgemischen. 2321.
- Rothman, M. A., Hans, H. S. and Mandeville, C. E.* Gamma rays excited by inelastic scattering of neutrons in various elements. 1163.
- *S. Swann, C. P.* 1154.
- Rothschild and Barnes, H.* Osmotic pressure of bull semen diluents. 339.
- Rothstein, Jerome.* Dislocation model of liquids. 110.
- Monomolecular vs bimolecular relaxation kinetics in Cu_3Au and beta brass. 336.
- Concept of a physical object. 360.
- Significance of nuclear spin echo experiments for the foundation of statistical mechanics. 1644.
- Rothwell, P. s. West, D.* 1975.
- Rott, N.* Unsteady viscous flow in the vicinity of a stagnation point. 914.
- Rottgardt, K. H. Jürgen und Berthold, Wolfgang.* Abnahme der Kathodolumineszenz von ZnS:Ag durch Bestrahlung mit 16 kV-Elektronen. 166.
- , — Veränderungen von Leuchtschirmeigenschaften unter Elektronenbestrahlung in Kathodenstrahlröhren. 862.
- Roubine, Elie s. Bonnet, Monique.* 1055.
- Roucajrol, Jean C. und Oberhausen, Erich.* Anordnung zum quantitativen Nachweis von energiearmen β -Strahlern mit fluoreszierenden Lösungen. 2341.
- Rouch, Jules.* Observations du champ électrique de l'atmosphère, faites à Monaco pendant l'éclipse partielle du soleil du 20 juin 1954. 1701.
- Rouelle, Ed.* Détermination expérimentale, sans interruption de service, des pertitances d'un réseau triphasé. 2504.
- Rourke, F. M. s. White, F. A.* 401, 1349.
- Rouse, C. A.* Cloud-chamber observations of μ -meson induced electron showers. 1802.
- , *J. L. s. Caro, D. E.* 1328.
- Rousseau, P.* Contrôle avec un calibre de miroirs très ouverts. Application de la méthode d'observation normale des franges de Newton. 684.
- Rousset, A.* Diffusion Rayleigh dans les solutions. 687.
- et *Lochet, R.* Diffusion moléculaire de la lumière: constantes de Lord Rayleigh des liquides étalons. 316.
- Roux, M. s. Chalvet, O.* 367.
- , *Mme Monique, Besnainou, Mme Sylvette et Daudel, Raymond.* Répartition de la densité électronique dans les molécules. I. Effet de la liaison chimique. 1811.
- , *Yves.* Etude et réalisation d'un four à haute fréquence pour laboratoire. 1723.
- Rouze, S. R. s. Grube, W. L.* 684, 806.
- Rowe, A. H. s. Claire, A. D. le.* 1195.
- , *E. G., Welch, P. and Wright, W. W.* Thermionic valves of improved quality for government and industrial purposes. 1454.
- , *G. W.* Vapour lubrication of titanium and zirconium. 1731.
- *s. Bowden, F. P.* 807.
- *s. Wild, J. P.* 876.
- Rowers, Raymond s. Melamed, Nathan T.* 1264.
- Rowland, F. S. s. Fireman, E. L.* 53.
- , *J. J. s. Bloembergen, N.* 2462.
- , *P. R.* Three-dimensional face-centred cubic model for the study of crystal phenomena. 2068.
- , *R. E.* Cascade gamma rays from $^{84}\text{Po}^{214}$ (RaC'). 1557.
- , *Robert E.* Analysis of fluorescent X-radiation by means of proportional counters. 494.
- , *W. E.* Design of triodes for U.H.F. medium-level power amplifiers. 154.
- Rowlinson, J. S. s. Cook, D.* 219.
- *s. Thacker, R.* 1114.
- Roy, D. K. s. Das, T. P.* 123.
- , *R. R. and Codeau, C.* Determination of the widths of the levels of P^{31} from the reaction $^{27}\text{Al}(\alpha, p)^{30}\text{Si}$. 2029.

- Roy, S. K. s. MacDonald D., K. C. 107, 2499.
- , T. C. Radiation damping in Compton scattering. 1255.
- Royden, Herbert N. and Wright, Byron T. Small-angle proton-proton scattering at 20 Mev. 1797.
- Royds, Thomas. 1089.
- Royon, Jean s. Bonnemay, Maurice. 831, 2073.
- Roy-Pochon, C. Couleurs sous les lampes. 322.
- Roy, P. A., Shure, K. and Taylor, J. J. Penetration of 6-Mev gamma rays in water. 91.
- s. Shure, K. 91.
- Royston, R. J. Linear extrapolation length at the surface of an imperfectly absorbing cylinder. 1382.
- Rozkos, Miroslav s. Dlouhy, Zdenek. 1354.
- Rozsa, J. T. and Grondin, N. A. Ultra-violet irradiation for air-interrupted spark sources. 1254.
- s. Bedell, H. M. 163.
- Rozzi, G. s. Cottini, C. 1972.
- Ruane, T. F., Waldman, B. and Miller, W. C. Absolute cross sections for the Coulomb scattering of 1.75 Mev electrons. 1171.
- Ruark, Arthur E. Electrodynamics as a basis for special relativity. 1923.
- and Good, William B. Unstable combinations which can simulate neutral mesons. 1527.
- Rubenstein, R. A. s. Blatt, F. J. 1214.
- Rubin, A. s. Ajzenberg, F. 1795.
- , B. A. Radiation microbiology: Problems and procedures. 1078.
- , L. G. s. Davis, L. jr. 134.
- , R. und Walter, M. Anregungsfunktion der Reaktion $\text{Li}^7(\gamma, p)\text{He}^6$. 952.
- , Robert J. Quantum-mechanical molecular distribution functions in a one-dimensional fluid composed of hard spheres. 553.
- Propagation of longitudinal deformation waves in a prestressed rod of material exhibiting a strain-rate effect. 912.
- Theorems in the theory of Brownian motion which apply to the excluded volume problem in polymer chains. 1632.
- Critique of a method of treating the effect of excluded volume in polymer chains. 2437.
- Rubin, Robert, J. and Fleishman, B. A. Frequency spectrum of a one-dimensional isotopic crystal mixture. 442.
- , Sylvan s. Tautfest, G. W. 976.
- Rubinow, S. I. Variational principle for scattering with tensor forces. 973.
- s. Feshbach, Herman. 944.
- Rubinson, William and Howland, J. J. jr. K-electron ejection in the beta decay of S^{35} . 79.
- , W. s. Bernstein, W. 314.
- Rubo, E. Sicherheit und vereinfachte Fertigung durch kombinierte Metall-Klebeverbindungen. 1273.
- Ruby, Charles L. s. Edmister, Wayne C. 751.
- , Lawrence and Gow, James D. Occluded gas ion source. 389.
- s. Heusinkveld, Myron. 1752.
- , S. L. s. Rustad, B. M. 595.
- Ruderman, Malvin and Karplus, Robert. Spin of the A^0 particle. 2351.
- , M. A. Polarization and cross section for inelastic scattering. 974.
- , Malvin A. s. Bludman, Sidney A. 1521.
- s. Goebel, Charles J. 1585.
- s. Karplus, Robert. 974.
- Rudrick, L. s. Ingle, G. W. 2226.
- Rudinger, George and Somers, Lowell M. Flow instability following shock reflection from a flared end of a duct. 1949.
- Rudnik, N. s. Burgener, J. E. 505.
- , Philip s. Anderson, Victor, C. 462.
- Rudolph, Heinz Dieter s. Maier, Wilhelm. 208.
- , Hellmuth. Polarimeter instrumentation. 157.
- , O. B. s. Werner, G. K. 1535.
- Rudorff, D. W. and Drubba, H. Electric spark machining. 2549.
- Rudstam, S. G. Preparing samples for absolute counting. 1148.
- Rudzinska, Maria A. and Porter, K. R. Electron microscope study of intact tentacles and disc in tokophrya infusion. 873.
- Rüchardt, Hugo. Bildung und Zerstörung von α -Zentren in KBr Kristallen. 108.
- Rüdiger, D. Randstörungsproblem isotroper Kreiszylinderschalen. 919.
- , O. and Dietze, H. D. Messung der Wärmeleitfähigkeit nach Diesselhorst. 2310.

- Rüetschi, Paul.* Oberflächenpotential der Metalle und das Galvanipotentiale Metall-Lösung. 1438.
- , *R. s. Heer, E.* 1359.
- Rühl, Wilhelm.* Struktur dünner, bei tiefer Temperatur kondensierter Salzschiechten. I. Alkalihalogenide. II. Halogenide der Schwermetalle Cu, Ag und Tl. 1203, 1204.
- Rüker, O. s. Gabler, F.* 1256.
- Ruelle, Ugo.* Condizioni di risonanza di un sistema di due circuiti accoppiati magneticamente. 2183.
- Rüst, Ernst jr.* Photomechanische Herstellung von Strichplatten. 2203.
- Ruetenik, J. R. and Corrsin, S.* Equilibrium turbulent flow in a slightly divergent channel. 17.
- Rütschi, R. s. Heer, E.* 948, 948.
- Rugh, Roberts, Suess, Josephine and Scudger, John.* Shock, toxemia in radiation lethality. 1479.
- Ruhla, Charles.* Etude de la diffusion α -proton pour des particules α d'énergie comprise entre 3,1 et 5,3 MeV. 2004.
- Ruhman, S. s. Guterma, S.* 1709.
- Rumpel, Fritz s. Härtl, Hans.* 2513.
- Rumpf, Kurt K.* Berechnung des Viscositäts-Index (V. I.). 1271.
- und *Stolte, Herbert.* Steilheitsfaktor der Viscosität-Temperatur-Funktion. 1308.
- , *Paul et Gillois, Michel.* Spectres d'absorption dans l'ultraviolet et structure de quelques dérivés du diphenyl-1,1 éthane, des diphenyléthylènes et du triphenyléthylène. 630.
- *s. Bloch, Claude.* 2322.
- Rumsey, N. J.* Suggested method for evaluating image sharpness. 1465.
- *s. Back, F. G.* 1465.
- Runciman, W. A.* Fluorescent centres in uranium-activated sodium fluoride. 1471.
- Runcorn, S. K.* Rock magnetism-geophysical aspects. 178.
- *s. Creer, K. M.* 2238.
- Rundle, R. E.* Polar versus nonpolar ice. 25.
- Structure of ice. 1192.
- Rundo, J.* Apparatus for the measurement of γ -radiation from the human body. 348.
- Rupert, C. S.* Water-cooled carbon arc source for infrared spectroscopy. 1062.
- Ruppel, W. s. Lautz, G.* 130.
- , *Werner s. Kleen, Werner.* 490.
- Rushbrooke, G. S. and Scoins, H. I.* Ising problem and Mayer's cluster sums. 1405.
- and *Wood, P. J.* High-temperature susceptibility for the Heisenberg model of a ferromagnet. 1421.
- Rusinko, F. jr. s. Walker, P. L. jr.* 2331.
- Ruska, E. s. Arend, H.* 2205.
- *s. Müller, K.* 1258.
- , *Helmuth.* Elektronenmikroskopischer Beitrag zur Histologie des Skelettmuskels kleiner Säugetiere. 2222.
- Russek, A.* Exchange moment contributions to a modified shell model. 1762.
- Russell, B. R. s. Lin, Lan-Ying.* 1825.
- , *C. s. Dale, W. M.* 704.
- , *D. W. and Weaver, C. H.* Synthesis of servomechanisms by root locations. 907.
- , *Edwin R., Lesko, Roman C. and Schubert, Jack.* Direct method for determining radium in exposed humans. 2230.
- , *G. A. and Klick, C. C.* Experimentally determined configuration coordinate curves for F-centers in alkali-halide crystals. 630.
- , *George A. and Klick, Clifford C.* Configuration coordinate curves for F-centers in alkali halide crystals. 2071.
- , *Henry Norris and Moore, Charlotte E.* First spectrum of barium, Ba I. 2403.
- , *J. L. s. Phillips, G. C.* 1542.
- , *K. E. and Simons, J.* Energy transfer. I. Combination of iodine atoms. 2325.
- , *R. A. and Thompson, H. W.* Vibrational band intensities and the electrical anharmonicity of the NH group. 1403.
- Rust, Hans Heinrich.* Dielektrisches Verhalten von Selenspersschichten bei Temperaturbelastungen im Sperrbereich. 477.
- , *H. H.* Elektroakustische Materialuntersuchungen. 1073.
- Rustad, B. M. and Ruby, S. L.* Gamow-Teller interaction in the decay of He^6 . 595.
- Ruston, Walter R. s. Halla, Franz.* 296.
- Rutherford, W. M. and Drickamer, H. G.* Theory of thermal diffusion in liquids and the use of pressure to investigate the theory. 1198.

- Rutherford, W. M., Dougherty, E. L and Drickamer, H. G. Thermal diffusion in binary mixtures of CS_2 and hexane isomers. 1514.
- Rutledge, G. P. s. Davis, W. jr. 12.
- , W. C. Determination of instantaneous Ba and BaO evaporation rates from thermionic cathodes. 1446.
- Ruyssen, R. et Anciaux, H. Vitesse d'incorporation du C^{14} dans les acides gras chez la souris. 1273.
- Ryan, A. H. and Summers, S. D. Microwaves used to observe commutator and slip ring surfaces during operation. 485.
- , J. Eugene s. Ogilvie, John C. 700.
- Rydbeck, O. E. H. and Agdur, B. Propagation of electronic space charge waves in periodic structures. 1193.
- Rydberg, J. Automatic sample changer for radiometric work. 1327.
- Ryde, N. and Andersson, B. Precision curved crystal gamma-ray spectrometer. 856.
- Ryder, C. s. Macrae, J. C. 1900.
- , N. V. s. Hodson, A. L. 1976.
- Rymer, T. B. Electron diffraction examination of thin films of aluminium and gold prepared by vacuum evaporation. 1841.
- Rysselberghe, Pierre van. Internationales Komitee fur elektrochemische Thermodynamik und Kinetik CITCE. Bericht der Kommission fur elektrochemische Nomenklatur und Definitionen. 826.
- Hydrogen overvoltage and atomic hydrogen electrodes. 2148.
- s. Zimmermann, Howard K. jr. 622.
- Rytow, Ss. M. s. Levin, M. L. 306.
- Ryu, Norio. Polarization of electrons by scattering. I. II. IV. 2394.
- , Hashimoto, Kimio and Nonaka, Itaru. Polarization of electrons by scattering. III. Reflection-transmission effect. 2395.
- Rzewuski, J. s. Krolikowski, W. 719.
- S
- Saal, R. N. J. Mechanische Eigenschaften von Bitumen. 2547.
- Saatzmann, Curt. Neuzeitliche Lichtquellen und ihre Anwendung in Huttenwerken. 2532.
- Sabbata, V. de and Sugie, A. Collective model for the nuclear photo-reactions. 1145.
- Sabatier, G. Analyse thermique diffentielle de quelques sulfures. 1740.
- Sacconi, Luigi. Mechanism of inorganic chromatographic adsorption on alumina. 459.
- Sacerdote, G. G. s. Ferrero, M. A. 2209.
- Sachs, A. M., Winick, H. and Wooten, B. A. Scattering of 38-Mev positive pions in hydrogen. 2039.
- s. Bodansky, D. 1384.
- , G., Brown, W. F. jr. und Newman, D. P. Wirkung von Spannungskonzentrationen auf die Zeitstandfestigkeit der Werkstoffe. 332.
- , R. G. Classification of the fundamental particles. 1990.
- Phase shifts in pion-nucleon scattering. 2396.
- and Treiman, S. B. Classification of the Eisenberg and similar events. 1990.
- s. Holladay, W. G. 7, 1759.
- *Sachse, Herbert. Ferroelektrika. 1089.
- Sack, H. S. s. Ames, I. 1265.
- s. Marvin, Robert S. 2440.
- s. s. Lazarus, John P. 1567.
- Sackinger, J. P. Fused silica dielectric measurements at low frequencies. 299.
- Sackmann, Horst. Isomorphiebeziehungen zwischen Tetrahalogeniden der IV. Gruppe. I. Erstarrungsgleichgewichte in binaren Systemen von CCl_4 mit Tetrachloriden der IV. Gruppe. 550.
- Sadanaga, R. s. Ito, T. 2066.
- Sadauskis, John s. Jesse, William P. 975, 1374, 2034.
- Sadler, M. S. s. Jarrett, H. S. 122.
- Sadron, Ch. Lois de la diffusion de la lumire du point de vue de leur application  l'tude des macromolcules en solution tendue. 2433.
- , Charles. Methodes generales de dtermination des masses et dimensions des macromolcules. 1831.
- Saeiki, Keiiti s. Tanikawa, Yasutaka. 2384.
- Saeland, Einar s. Popovi, Dragoslav. 2017.
- Saenger, Alfred s. Hudson, George E. 376.
- Sanger, E. Thermodynamik des berschall-Geradstodiffusors. 1106.

- Sänger, E.* Stationäre Kernverbrennung in Raketen. 2297.
- , *Eugen.* Hypotetische Rolle des Photonengases bei der Detonation und Verbrennung fester oder flüssiger Explosivstoffe. 1966.
- Mechanik der Photonen-Strahlantriebe. 2297.
- Physikalische Grundlagen der Strahlantriebstechnik. 2298.
- , *Ramund, s. Pruppacher, Hans Rudolf.* 1510.
- Sänger-Bredt, Irene.* Flugschleppversuche mit Überschall-Staustahlrohren bei mäßigen Unterschall-Geschwindigkeiten. 2294.
- — Adiabatenexponenten bei chemisch veränderlichen Gasgemischen. 2314.
- Saenz, A. W.* Quantum-statistical derivation of the transport equation for mixtures of dilute gases with molecules of arbitrary spins. 1746.
- and *O'Rourke, R. C.* Magnetic moment of a Fermi-Dirac gas. 10.
- Sagane, Ryokichi, Dudziak, Walter and Vedder, James.* Positron, spectrum from the decay of the μ meson. 1342.
- *s. Dudziak, Walter.* 1342.
- Sagel, K. s. Münster, A.* 1032, 1075.
- Saha, A. K. and Ray, S.* Features of the E2-layer observed at the ionosphere field station, Haringhata, Calcutta. 1914.
- *s. Baral, S. S.* 1286, 2571.
- Sahni, R. C.* Automatic computation of the electronic wave functions of molecules. 622.
- Saia, A. s. Lipson, S.* 1099.
- Saidel, Leo J., Goldfarb, A. Robert and Kalt, Wallace B.* False absorption bands in the region of 200-230 $m\mu$ caused by stray radiation in the Beckman spectrophotometer. 2063.
- Saika, A. and Slichter, C. P.* Fluorine resonance shifts. 277.
- Sailor, V. L.* Neutron resonances in U^{233} and U^{235} . 1383.
- , *Landon, H. H. and Foote, H. L. jr.* Neutron resonances in the rare earth elements. 409.
- — and *Wood, R. E.* Analysis of neutron resonance data. 958.
- *s. Landon, H. H.* 958, 1364.
- *s. Wood, R. E.* 960.
- Saint-Guily, Bernard.* Niveau moyen de la côte atlantique de l'Amérique du Nord. 2578.
- Saint Maurice, A. B. de. s. Champion, K. S. W.* 1050.
- Saitô, E. s. Kirrmann, A.* 830.
- Saito, Nobuhiko and Ikeda, Yuichi.* Light scattering by non-spherical particles in solutions. II. Analytical formulation. 2530.
- , *S. s. Gilford, S. R.* 222.
- , *Shigebumi.* Measurement at 9,000 Mc of the dielectric constant of air containing various quantities of water vapor. 1660.
- , *Y., Okaya, Y. and Pepinsky, R.* Direct X-ray determination of absolute configurations of optically active molecules. 2063.
- Sakai, M. Murray, B. and Kurbatov, J. D.* Comparative study of gamma spectrum of I^{131} with scintillation and thick lens spectrometer. 968.
- — — Disintegration of arsenic-76. 67.
- *s. Kurbatov, J. D.* 961.
- , *Mitsuo.* Spectromètre magnétique à rayonnements électroniques. 230.
- Avoiding scattered electrons from the spectrum obtained by magnetic spectrometer. 931.
- Sakamoto, Masayoshi.* Threshold of the exciton band in BaO. 1435.
- , *Bobuhiko Asahi, Takushi and Miyahara, Syôhei.* Magnetization of magnetite. 645.
- Sakata, Hajime, Matsuda, Kazuhisa and Takeda, Eiichi.* Thermal concentration of carbon isotopes using carbon monoxide gas. 2360.
- , *Kimiko s. Sakata, Tamio.* 2133.
- , *Shigeo s. Terao, Nobuzo.* 2216.
- , *Tamio, Sakata, Kimiko and Kigoshi, Kunihiko.* Resistivity and crystal structure of binary oxide of nickel and cobalt. 2133.
- , *Toshimichi.* Thermoelectric power of cesium antimonide. 1446.
- Halleffect in Cs_3Sb photo-cathode. 2500.
- Experimental studies of the conductivity and thermo-electromotive force of Cs_3Sb photo-cathodes. II. 2500.
- Cs_3Sb photo-cathode. 2500.
- and *Munesue, Seiji.* Magneto-resistance of Cs_3Sb photo-cathodes. 1223.
- Sakayanagi, Yoshimi.* Ruling of a curved grating. 1884.
- Sakellaridis, Paul.* Multiplets caractéristiques des terres rares dans leurs spectres d'émission X. 994.

- Sakellaridis, Paul.* — Émissions au voisinage des discontinuités d'absorption dans la région L des spectres X des terres rares. 2049.
- Détermination de la constante d'équilibre K en solution. 2055.
- Saker, E. W.* Optical properties of liquid selenium. 263.
- s. *Ross, I. M.* 293.
- Sakihama, K.* and *Takagi, S.* Nucleonic Components at high altitudes. 2401.
- Sakiotis, N. G.* *Chait, H. N.* and *Kales, M. L.* Nonlinearity of propagation in ferrite media. 1665.
- Saksena, B. D.* and *Pant, L. M.* Cathodoluminescence of MgO. 327.
- Raman spectrum and cathodoluminescence spectrum of aluminium phosphate. 863.
- Cathodo-luminescence spectra of beryl. 1890.
- and *Viswanathan, S.* Principal lattice frequency of MgO. 1006.
- Sakuma, Shūzō.* Elastic and viscous properties of volcanic rocks at elevated temperature. I. II. III. Oosima lava. 2566.
- Earth-current potentials near boundaries of various geological formations. 2570.
- Sakurai, Akira.* Flow due to impulsive motion of a wedge and its similarity to the diffraction of shock waves. 1505.
- Extraordinary phenomena in a nonlinear forced oscillation. 1878.
- Propagation and structure of the blast wave. I. 2298.
- , *Kiichi.* Graphical method for applying Harker-Kasper inequalities to structure determination. 1002.
- , *Tokio.* Microwave circuit theory. 2510.
- Salacz-Dohnanyi, Julius* and *Green, Alex E. S.* Mixed Wigner-IPM mass surface. 567.
- Salam, A.* Generalised dispersion relations. 1298.
- and *Polkinghorne, J. C.* Classification of fundamental particles. 365.
- , *Matthews, P. T.* 718.
- , *Abdus.* Modified propagation functions in perturbation theory. 2267.
- and *Gilbert, W.* Generalised dispersion relations. II. 1298.
- and *Matthews, P. T.* Fredholm theory of scattering in a given time-dependent field. 1584.
- Salam, Abdus.* s. *Kemmer, N.* 773.
- Salandin, G. s. Ceccarelli, M.* 763.
- s. *Davies, J. H.* 763.
- Salant, E. O.* s. *Hill, R. D.* 45, 1335, 1755.
- s. *Hornbostel, J.* 1134, 1335, 1755, 1996.
- Salatiello, Peter P.* s. *Morton, Maurice.* 452.
- Salins, René de.* Combustion de l'aluminium dans l'air. 30.
- Salka, O. s. Norinder, H.* 118.
- Salkovitz, E. I.* s. *Kammer, E. W.* 1446.
- , *Esward I. s. Schindler, Albert I.* 2113.
- s. *Weertman, J.* 509.
- Salman, H.* Gefüge der keramischen Oberfläche. Auswirkung der Oberflächenspannung. 869.
- Salmon, Jean.* Théorie de la décharge haute fréquence dans les gaz aux basses pressions Calcul de la fonction de distribution des électrons. 840.
- Saloom, J. A.* s. *Cutler, C. C.* 851.
- Salow, H.* and *Münch, W. v.* Schalttransistor mit kurzen Sprungzeiten. 2137.
- Salpeter, E.* Spektroskopische Chlorbestimmung in Steinmeteoriten. 2562.
- , *E. E.* Wave functions in momentum space. 360.
- Nuclear reactions in stars. II. Protons on light nuclei. 707.
- 7,68-Mev level in C^{12} and stellar energy production. 1281.
- s. *Newcomb, W. A.* 1807.
- , *E. W. s. Junkes, J.* 493, 2523.
- , *Ernst W.* and *Bitterlich, Wolfram.* Photoelektrische Belichtungsmessung bei Spektralaufnahmen. 2523.
- Salter, D. C.* and *Bird, L.* Excitation function for the reaction ${}^9\text{Be}(p, p_2n){}^7\text{Be}$. 2367.
- , *L.* Low frequency vibrational spectrum of F. C. C. lattice. 442.
- Simon melting equation. 2315.
- Salvat, M. s. Bernard, R.* 690.
- Salvanini, Jean.* Analyse immuno-chimique par diffusion. 697.
- Salven, Harold.* Resonance transitions in molecular beam experiments. I. General theory of transitions in a rotating magnetic field. 1399.
- Salzer, Herbert E.* Formulas for facilitating oscillatory interpolation. 2258.
- , *John M.* Frequency analysis of digital computers operating in real time. 896.
- Salzman, G.* Structure of the mesonic cloud associated with a nucleon. 188.

- Salzman, G. and Taub, A. H. Born-type rigid motion in relativity. 1711.
- , George. Neutron-electron interaction. 1797.
- Sample, J. T., Neilson, G. C. and Warren, J. B. Performance of a fast neutron collimator. 932.
- Sampson, M. B. s. Miller, D. W. 1366, 1783, 2375.
- s. Rasmussen, V. K. 64, 1566, 1783.
- Samson, J. A. R. s. Vollrath, R. E. 1537.
- , Sten. Crystal structure of the inter-metallic compound $Mg_3Cr_2Al_{18}$. 1473.
- Sanada, Jyumpei and Yoshizawa, Yasukazu. Binding energies of light nuclei. 2357.
- s. Yamabe, Shotaro. 2392, 2392.
- Sancelme, André. Réduction cathodique en phase aqueuse de composés minéraux solides insolubles. 2145.
- Sancier, Kenneth M. s. Freed, Simon. 1257.
- Sandell, E. B. s. Sauerbrunn, R. D. 2151.
- Sanders, J. E. Sources of neutrons for experimental purposes. 232.
- Angular distributions of gamma rays from $^{19}F(p, \alpha\gamma)^{16}O$. 2387.
- , J. H. s. Collington, D. J. 1529.
- , Richard M. s. Bina, Melvin J. 906.
- , T. M. s. Dousmanis, G. C. 1621.
- , William W. s. Rose, Arthur. 1112.
- Sandiford, D. J. s. Rose, F. W. G. 649.
- Sandorfy, C. s. Chalvet, O. 367.
- , Camille s. Jones, R. Norman. 1617.
- Sandoz, G. s. Stauss, H. E. 2546.
- Sandri, G. Influence of new unstable particles on the electromagnetic properties of nucleons. 1996.
- s. Sreekantan, B. V. 1334.
- Sands, M., Bloch, M., Teasdale, J. G. and Walker, R. L. Search for the photoproduction of meson pairs in hydrogen. 1525.
- Teasdale, J. G. and Walker, R. L. Photoproduction of charged mesons from deuterium. 397.
- , Matthew. Synchrotron oscillations induced by radiation fluctuations. 391.
- , R. H. Paramagnetic resonance absorption in glass. 2460.
- Sandweiss, Jack s. Birge, Robert W. 1755.
- Sano, Mitsuo. Gamma-transition of nuclei. 2032.
- Santangelo, M. s. Vittorelli, M. B. Palma. 816.
- Santavy, Ivan. Radiation of an electric dipole near the boundary between two media. 1447.
- Santen, J. G. van. s. Diemer, G. 1072.
- Santon, Lucien et Depassel, Roger. Ecoulement de l'air à grande vitesse dans un tuyau cylindrique. 914.
- — Profil des vitesses dans l'écoulement de l'air à grande vitesse dans un tuyau cylindrique. 1946.
- Saperstein, A. M. s. Breit, G. 81.
- s. Hull, M. H. jr. 84.
- Saphir, G. Scattering and absorption of 50-Mev π^+ mesons in lead. 1385.
- , George s. Fowler, William B. 1528.
- s. Maenchen, George. 1753, 2001.
- s. Wright, Robert W. 1797.
- Sapp, R. C. s. Jastram, P. S. 2359.
- Sarabhai, V., Desai, U. D. ad Venkatesan, D. Cycle of world-wide changes in the daily variation of meson intensity. 427.
- — Solar influence on the anisotropy of primary cosmic radiation. I. Studies at low latitudes. 2047.
- Saraf, B., Varma, J. and Mandeville, C. E. Radiations from Y^{90} , Zr^{97} , Pr^{142} and Pr^{143} . 1163.
- , Babulal. Energy levels of Rh^{103} from the decay of Pd^{103} and Ru^{103} . 584.
- s. Hans, H. S. 1163.
- s. Mandeville, C. E. 957, 1155.
- , J. R. Raman spectra of some simple and complex halides of cadmium. 783.
- Raman spectra of iodic acid at different dilutions. 783.
- Sard, R. D. s. Barker, K. H. 1999.
- Sargent, C. P., Rinehart, M., Lederman, L. M. and Rogers, K. C. Diffusion cloud-chamber study of very slow mesons. II. Beta decay of the muon. 1526.
- Corneliuss, R., Rinehart, M., Lederman, L. M. and Rogers, K. Diffusion cloud-chamber study of very slow mesons. I. Internal pair formation. 1344.
- Sarine, Carl D. s. Ragosine, Victor E. 172.
- Sarkes, L. A. s. Hine, G. J. 344.
- Sarma, D. G. Distributed amplification. 305.
- , K. S. s. Blevin, W. R. 1256.
- , N. s. Allan, H. R. 2035.
- Sartorius, H. Optimierungsproblem in der Regelungstechnik. 2277.

- Sasakawa, Tatuya.* Statistical quantum mechanics of time-dependent phenomena and viscosity. 1321.
- Formal theory of error estimation of rearrangement collisions. 2360.
- and *Sawada, Tatsu.* Asymmetric fission. 2370.
- Sasaki, Wataru.* Electrical resistivity of SiC. 2476.
- Sasmor, D. J. s. Dworkin, A. S.* 1109.
- Sastry, G. Sivarama s. Krishnamurthi, M.* 1205.
- Satarov, V. I. s. Dželepov, V. P.* 1798.
- Satava, Vladimir.* Gerät zur rheologischen Untersuchung des Erstarrungsverlaufes der Bindemittel. 2540.
- Satchler, G. R.* Gamma radiation following the surface scattering of nucleons. 598.
- Polarization in nuclear reactions. 598.
- Deuteron stripping and the collective nuclear model. 598.
- Sato, Hiroshi.* Experimental study of the spectrum of isotopic turbulence. III. 2292.
- , *Hisanao.* Thermal conductivity of ferromagnetics. 1741.
- , *Iwao.* Nuclear forces in pseudoscalar meson theory. 2361.
- and *Itabashi, Kiyomi.* Electromagnetic properties of deuteron. 2009.
- , *Kinzo* and *Namba, Masaharu.* Photo-current of high purity SiC single crystal. 1226.
- , *Masatomo s. Maki, Ziro.* 2396.
- , *Mitsuru.* Accurate determination of absolute values of X-ray levels in copper. 2049.
- , *Ryōtiro.* Electron diffraction investigation of the actions of aqueous heavy metal salts on mineral surfaces. I. Action of silver nitrate and sulfate on sphalerite cleavage face. 2443.
- Oriented overgrowth of primary oxide on α -Fe. 2544.
- Satō, Tadashi Nagao, Shigeo* and *Toriyama, Yotsuo.* Space-charge limited current in insulating oil. 2548.
- Sato, Teruo.* Anomalous variations of maximum electron density and its height in the F_2 region of the ionosphere. 2246.
- Electron density of the D region. 2571.
- Influences of ions in the ionosphere. 2571.
- and *Namikawa, Tomikazu.* Latitudinal distributions of diurnal and semi-diurnal components of $h'F_2$ of the ionosphere. 2247.
- Satō, Yasuo.* Mathematical study of the propagation of waves upon stratified medium. I. II. 353.
- Boundary conditions in the problem of generation of elastic waves. 353.
- Transformations of wave-functions related to the transformations of coordinate systems. I. II. 353.
- Rayleigh waves propagated along the plane surface of horizontally isotropic and vertically aeolotropic elastic body. 353.
- Study on surface waves. I. Velocity of Love-waves. 354.
- II. Velocity of surface waves propagated upon elastic plates. 354.
- IV. Equivalent single layer to double superficial layer. 354.
- Seismic focus without Rayleigh waves. 354.
- Transformation of spherical solid harmonics related to the translation of coordinates system. 2566.
- Surface waves V. Love-waves propagated upon heterogeneous medium. 2566.
- VI. Generation of Love and other types of SH-waves. 2566.
- VII. Travel times of Love-waves. 2566.
- VIII. Nomogram for the phase velocity of Love waves and maximum thickness of the surface layer. 2566.
- IX. Nomogram for the group velocity of Love-waves. 2566.
- Velocity of elastic waves propagated in media with small holes. 2566.
- Velocity of elastic waves propagated in media with small obstacles. 2576.
- s. *Takahashi, Takehito.* 356.
- Satoh, Tuneso.* Mathematical analysis of the problem of the heat conduction with the variable transfer coefficient. 2310.
- Sattar, Abdul R., Morgan, Ira L.* and *Hudspeth, Emmett L.* Excitation curve for $Be^9(n, \alpha)He^6$. 1542.
- Satterly, John.* Use of Fitch's apparatus for the measurement of the thermal conductivity of thin slabs of poorly conducting materials. 1920.
- Satterthwaite, C. B., Corak, W. S., Goodman, B. B.* and *Wexler, Aaron.* Specific heat of vanadium in the normal and superconducting states. 1023.

- Satterthwaite, C. B.* s. *Corak, W. S.* 127, 922, 1023.
- Satyanarayana, R.* and *Rai, Dharambir.* Interference of polarized components of the radio wave in the ionosphere. 2177.
- Sauer, M.* Vereinfachtes elektronenzählendes Sternphotometer als Ergebnis einer Diskussion der photometrischen Meßmethoden. 1279.
- Nachweis sekundärer Helligkeitsschwankungen in den Lichtkurven von RR Lyrae-Sternen. 1281.
- Sauerbrunn, R. D.* and *Sandell, E. B.* Ionization constants of osmic (VIII) acid. 2151.
- Sauermann, G.* s. *Ewald, H.* 1749.
- s. *Schierstedt, G. v.* 2006.
- Saumagne, Pierre* s. *Josien, Marie-Louise.* 2409.
- Saunders, James B.* Optical test for spherical aberration. 1677.
- Inverting interferometer. 1679.
- , *M. J.* and *Smith, A. G.* Atmospheric turbulence. 712.
- , *V. I. s. West, W.* 1467.
- Saur, A. J. s. Berman, A.* 1638.
- Sauvel, J. s. Galperin, B.* 1723.
- , *Jean et Vodar, Boris.* Appareil pour la détermination des équations d'état des gaz sous hautes pressions et aux températures élevées. 1724.
- Sauro, Joseph s. Gordon, Elias.* 2558.
- Saussure, Gerard de and Osborne, L.* Elastic photoproduction of π^0 mesons in helium and (γ , n) reaction on helium at high energies. 2013.
- Sauter, F. s. Gerstenkorn, H.* 1849.
- Sautter, D. s. Glaser, G.* 838.
- Sauvenier, H.* Absorption additionnelle des cristaux mixtes d'halogénure d'argent et d'impuretés. 2425.
- , *Henri s. Hautot, Antoine.* 2203, 2204.
- Savelli, M. s. Picinbone, B.* 323.
- Savitt, Jacob.* Method for the observation of the ionization profile behind explosive produced shocks in air. 920.
- Savitzky, Abraham and Bresky, Donald R.* Application of bichromator infrared dispersion analyzer. 1679.
- Savornin, J.* Recherches thermoélectriques sur le silicium. 288.
- Sawada, Katurō s. Fukuda, Nobuyuki.* 1094.
- , *Masao, Tsutsumi, Kenjiro, Shiraiwa, Toshio and Obashi, Masayoshi.* Fine structures of X-ray absorption spectra of amorphous substances. Amorphous state of the binary system of nickel-sulfur. II. 780.
- Sawada, Katurō, Masao, Tsutsumi, Kenjiro Shiraiwa, Tshohio, and Obahhi, Masayoshi.* Amorphous state of the binary system of nickel-sulfur. 1205.
- — — Structure of the X-ray non-diagram lines $K\beta_\eta$ for elements from Cr(24) to Zn(30). 1804.
- , *Tatsuro s. Otsuki, Shoichiro.* 1765.
- s. *Sasakawa, Tatsuja.* 2370.
- Sawadsskaja, T. N. s. Berditschewsskij, M. N.* 1087.
- Sawaguchi, Etsuro.* Lattice constant of $PbZrO_3$. 2418.
- Ferroelectricity versus antiferroelectricity in the solid solutions of $PbZrO_3$ and $PbTiO_3$. 2497.
- Sawaki, Tsukasa and Kubota, Hiroshi.* Hard and efficient reflection-reducing coating. 2520.
- Sawamoto, K. s. Yamaka, E.* 825, 2132.
- Sawicki, J.* Proton polarization in (n, p) reactions and nuclear optical model. 2010.
- s. *Dabrowski, J.* 53.
- Sawjalow, W. D. and Timoschin, Ju. W.* Hodographen reflektierter Wellen für krummlinige Begrenzung der Trennfläche und ihre Interpretation. 1086.
- Sawyer, J. S.* Vertical circulation at meteorological fronts and its relation to frontogenesis. 1287.
- , *R. A. s. Wahr, J. C.* 1404.
- , *R. B. s. Clifford, Joseph M.* 1959.
- Saxe, R. F. and Chippendale, R. A.* Millimicrosecond exposures by image tubes. 315.
- Saxena, S. C.* Higher approximations to diffusion coefficients and determination of force constants. 2336.
- Saxon, David S. s. Melkanoff, Michel A.* 1797, 2389.
- s. *Moe, Mildred M.* 1795.
- s. *Nodwick, John S.* 41.
- Saxov, S. E.* Danish Gravity Reference Stations. 1085.
- Saxton, J. A.* Dielectric dispersion in pure polar liquids at very high radiofrequencies. II. Relation of experimental results to theory. 2169.
- s. *Lane, J. A.* 2169.
- , *R. L. and Drickamer, H. G.* Thermal diffusion in mixtures of tetrachloro-

- ethane with normal paraffin hydrocarbons. 1613.
- Saxton, R. L. Dougherty, E. L. and Drickamer, H. G.* Thermal diffusion in binary liquid mixtures of molecules of simple symmetry. 1199.
- Sayce, L. A.* Production of accurate linear scales by means of the Merton nut. 2277.
- Sayer, W. H. jr. and Mehrbach, E.* UHF transmitter uses beer-barrel cavity. 486.
- Sayied, Abul Maksud s. Nag, B. D.* 2189.
- Sayre, D.* Implications of a theorem due to Shannon. 1002.
- Scaife, B. K. s. Davies, R. O.* 1659.
- , *B. K. P.* High temperature susceptibility of a lattice of permanent dipoles. 120.
- Isothermal pressure dependence of the dielectric properties of eugenol, glycerol and water. 482.
- Scalettar, Richard.* Schrödinger-like equation for the measurement process. 1714.
- Scanlon, J. P.* Slide rule technique for calculating neutron energies from tracks in nuclear emulsions. 1323.
- , *Wayne W. s. Petritz, Richard L.* 471.
- Scarf, Frederick, L.* Spectrum of a Bethe-Salpeter equation. 362.
- Spectrum and nonrelativistic limit of a Bethe-Salpeter equation. 1498.
- Scarsi, L. s. Davies, J. H.* 763.
- Schaaf, S. A. s. Bell, S.* 375.
- Schaaß, Werner.* Zu Schall, R. und Thomer, G.: Schwächung von Röntgenstrahlen in komprimierten Flüssigkeiten. 371.
- Röntgenblitzröhre zur Erzeugung von Röntgeninterferenzen in einer Mikrosekunde. 1819.
- Schaal, A. s. Plesch, R.* 1079.
- , *Robert.* Méthodes cryométriques et potentiométriques de mesure des très faibles constantes d'ionisation. 662.
- Schaap, W. B. s. Peacock, John.* 2322.
- Schachman, H. K. s. Cheng, P. Y.* 1419.
- Schacht, L., Schreibe, G. und Schuller, H.* Übertragung monomolekularer Filme auf feste Träger. 639.
- Schade, Th.* Numerische Integration einer Differentialgleichung der Wellenmechanik. 360.
- Schäfer, Alfred.* Atomistische Vorstellungen über die Vorgänge bei der Verformung und Rekristallisation von Metallen. 1268.
- Schaefer, D. H. s. Scorgic, D. G.* 543.
- Schäfer, Gerta s. Altrichter, O.* 2530.
- Schaefer, G. W. s. Brown, G. E.* 1183.
- Schäfer, Harald.* Nach Untersuchungen mit Bayer, Lisel, Breil, Günther, Etzel, Karl und Krehl, Kurt. Sättigungsdrucke der Chloride $MnCl_2$, $FeCl_2$, $CoCl_2$ und $NiCl_2$. 1113.
- Schaefer, H. J.* Protection of humans from heavy nuclei of cosmic radiation in regions outside the atmosphere. 2296.
- Schäfer, K. und Wolff, H.* Zwischenmolekulare Kräfte und Ramaneffekt bei Mischungen des Acetons mit unpolaren Lösungsmitteln II. Beziehungen zwischen Linienverschiebung und Mischungswärme. 2058.
- , *Kl. und Gerstacker, H.* Echte Adsorption und Akkommodation einiger Gase an Glasoberflächen. 1012.
- , *Buri, H. und Moesta, H.* Direkte Bestimmung der Adsorptionskeit verschiedener Gase an einer Glasoberfläche. 639.
- , *W.* Transformatoren. 1291.
- Schaerer, A. A., Busso, C. J., Smith, A. E. and Skinner, L. B.* Properties of pure normal alkanes in the C_{17} to C_{36} range. 1405.
- Schaetti, N.* Möglichkeiten einer Beeinflussung der Charakteristik einer Cs-Sb-Photokathode. 483.
- und *Baumgartner, W.* Dunkelstrom in Photomultipliern. 308.
- Schätti, N. s. Baumgartner, W.* 2172.
- Schafer, W. D. s. Leachman, R. B.* 1354.
- Schaffer, Allan and Cambel, Ali Bulent.* Effect of an opposing jet on flame stability. 1952.
- Schaffhauser, Edith und Hardung, Victor.* Ausbreitung nichtperiodischer Druckwellen in elastischen Rohrleitungen. 696.
- Schaffner, J. S. and Suran, J. J.* Transient response of the grounded base transistor amplifier with small load impedance. 478.
- , *s. Kerr, J. S. S.* 2116.
- Schafroth, M. R.* Theory of superconductivity. 126.
- Schagen, P.* Limiting resolution due to charge leakage in the scenioscope, a new television-camera tube. 1454.

- Schall, R.* Röntgenblitzuntersuchungen bei Sicherheitssprengstoffen. 21.
- , *Rudi und Thomer, Gustav.* Röntgenabsorption in komprimierten Flüssigkeiten. 371.
- Schallamach, A.* Load dependence of rubber friction. 1312.
- **Schallreuter, Walter.* Einführung in die Physik. III. Optik und Atomphysik. 1706.
- Schalnikow, A. I. s. Rodionow, Ss. F.* 314.
- Schamp, H. W. jr and Katz, E.* Self-diffusion and ionic conductivity in sodium bromide. 2426.
- Schardin, H.* Fracture processes in glass. 2547.
- , *Hubert, Mücke, Leonhard und Struth, Wolfgang.* Bruchgeschwindigkeit von Gläsern. 2547.
- Schardt, A. W. and Welker, Joan P.* Energy levels of As^{75} . 1558.
- *s. Dropesky, B. J.* 1158.
- Scharenberg, R. P., Stewart, M. G. and Wiedenbeck, M. L.* Directional correlation of gamma rays from Sn^{116} . 1582.
- *s. Stewart, M. G.* 1555.
- Scharff, M., Gjeldaker, G. and Sorensen, S. O.* Three examples of complete τ -decay. 1136.
- *s. Boggild, J. K.* 1757, 2352.
- *s. Davies, J. H.* 763.
- *s. Lindhard, J.* 2388.
- , *Morris F.* Moments of Na^{23} . 49.
- Scharff-Goldhaber, Gertrude.* Excited states of even-even nuclei. 2029.
- and *Weneser, J.* System of even-even nuclei. 589.
- and *Weneser, Joseph.* Higher excited states of even-even nuclei. 1362.
- , *Mateosian, E. der, Harbottle, G. and McKewen, M.* Decay of U^{232} (74 yr). 1552.
- Scharmann, A.* Messung von Fluoreszenzabklingzeiten mit einem Fluorometer mit variablem Lichtweg. 2207.
- Schauenstein, E. s. Kratky, O.* 2431.
- Schawlow, A. L.* Nuclear quadrupole resonances in solid bromine in iodine compounds. 1643.
- Structure of the intermediate state in superconductors. 2114.
- and *Townes, C. H.* Effect on X-ray fine structure of deviations from a Coulomb field near the nucleus. 2047.
- Schechter, Larry and Ellis, R. E.* Elastic scattering of 48-Mev alpha particles. 1796.
- , *Crandall, Walter E., Millburn, George P. and Ise, John jr.* Cross section for producing high-energy neutrons from carbon targets bombarded by protons, deuterons and He^3 particles. 557.
- *s. Ellis, R. E.* 1587, 2388.
- Scheer, K. E. s. Becker, J.* 345.
- , *M. und Zeidler, E.* Vergleich der Sommerfeldschen Theorie der Röntgen-Bremsstrahlung mit experimentellen Untersuchungen. 94.
- , *Milton D.* Thermodynamic properties of chlorine trifluoride. 1958.
- Scheffler, H.* Astronomische Szintillation und atmosphärische Turbulenz. 1480.
- Scheibe, A., Adelsberger, U., Becker, G., Ohl, G. und Süß, R.* Konstruktion und Leistung neuer Quarzuhren der Physikalisch-Technischen Bundesanstalt. 2272.
- , *Adolf.* Richard Vieweg zum 60. Geburtstag. 1918.
- , *Elmer H., King, Bernard G. and Zealand, Donald L. van.* Loss measurements of surface wave transmission lines. 1055.
- , *G. und Schuller, H.* Polymerisation monomolekularer Filme von Vinylisobutyläther. 637.
- *s. Schacht, L.* 639.
- , *Günther s. Käufer, Helmut.* 114.
- Scheidegger, A. E.* Gravitational motion. 2264.
- , *Adrian E.* Statistical hydrodynamics in porous media. 1944.
- und *McKay, Carlyle D.* Thermodynamische Vakuum schwankungen der Wellenfelder. 1928.
- Scheil, Erich.* Untersuchungen über das reguläre Massenwirkungsgesetz. 751.
- Eutektische Kristallisation. 2421.
- Schein, Marcel and Haskin, D. M.* Production of hyperons and K-mesons in the energy π^- beam of the Berkeley bevatron. 1993.
- , *M., Glasser, R. G. and Haskin, D. M.* Analysis of properties of secondary particles in nucleon-nucleon collisions at very high energy. 1147.
- , *Haskin, D. M. and Glasser, R. G.* Heavy unstable particles produced in the high energy pion beam of the Berkeley bevatron. 1130.

- Schein, Marcel, Haskin, D. M. and Glasser, R. G.* Investigations on the photon event. 1357.
- , — and *Leenov, Daniel.* Unstable ${}^4\text{H}^+$ fragment from the capture of a Σ^- hyperon. 1997.
- s. *Cavanaugh, R. E.* 1993.
- s. *Chou, C. N.* 426.
- s. *Glasser, R. G.* 1147, 1356.
- s. *Haskin, D. M.* 1993, 2351.
- s. *Koshiba, M.* 1389.
- s. *Leenov, Daniel.* 1993.
- s. *Orcar, Jay.* 405.
- s. *Williams, D. B.* 2000.
- Scheffler, H.* Intensitätsabfall am Sonnenrand im Ultraviolett und die Temperaturschichtung in der Sonnenatmosphäre. 349.
- Schellenberg, L. s. Franzen, W.* 760, 1125.
- Scheller, H.* Abreibbogergerät. 1254.
- Schenck, James.* Neutron-detecting phosphors. 1979.
- Schenk, H. and Dchlinger, U.* Gitterbindung und Bänder der Valenzelektronen bei Gallium und Molybdändisilizid. 2464.
- , *J.* Heat loss of fluids flowing through conduits. 2312.
- Schepers, J. s. Itterbeek, A. van.* 2114.
- Scherb, F. s. Day, R. B.* 979.
- Scherer, G. A. s. Asbeck, W. K.* 2098.
- , *J. R. s. Mills, I. M.* 1883.
- , *P. C. s. Chinai, S. N.* 2082.
- Scherhag, Richard.* Allgemeine atmosphärische Zirkulation. Zusammenhänge zwischen der elfjährigen Sonnenfleckperiode und der allgemeinen Zirkulation? 2581.
- , Prof. Dr. phil. Harald, 75. Geburtstag 894.
- , *H.* Induktivität von zwei geraden parallelen Leitern mit gleichen Rechteckquerschnitten. 648.
- Scherr, Charles W.* Free electron network model for conjugated systems. II. Numerical calculations. 100.
- Single scale factor in atomic wave functions. I. II. Application to overlap integrals. 1300.
- Atomic term values in molecular wave functions. 1401.
- Scherrer, P. s. Gimmi, F.* 2385.
- , *Paul s. Heer, Ernst.* 948.
- , *P. s. Humbel, F.* 481.
- , *V. E., Allison, B. A. and Faust, W. R.* Gamma radiation from interaction of 3.2-Mev neutrons with various materials. 772.
- Scherrer, E. V., Faust, W. R. and Allison, B. A.* Cascade γ rays from 2.5 Mev neutron bombardment of gold, iodine and chromium. 597.
- s. *Faust, W. R.* 1122.
- , *Willy.* Lineare Feldtheorie. I. Wirkungsprinzip und seine Anwendung in der Kosmologie. IV. Statische Felder. 1295.
- Schick, K. s. Schmitz, G.* 671.
- Schildrop, Edgar B.* Principle in classical mechanics with a relativistic path-element extending the principle of least action. 1493.
- Schierstedt, G. v., Ewald, H., Liebl, H. und Sauermann, G.* Neubestimmung der Massen von ${}^{32}\text{S}$, ${}^{33}\text{S}$, ${}^{34}\text{S}$ und ${}^{12}\text{C}$. 2006.
- Schiesser, H.* Charakteristische Eigenschaften magnetischer Schallaufzeichnungen in Abhängigkeit von den Betriebsbedingungen und den Tonträger-eigenschaften. 743.
- Schiessler, R. W. s. Cutler, W. G.* 375.
- s. *Lowitz, D. A.* 379.
- Schiff, B.* Cellular method for a close-packed hexagonal lattice, with applications to titanium. 1426.
- , *Daniel.* Numerical solution of the integral transport equation. 385.
- , *L. I.* Nuclear multipole transitions in inelastic electron scattering. 87.
- Nuclear dispersion contribution, to high-energy electron scattering. 608.
- Electric monopole transitions in C^{12} and O^{16} . 965.
- Nuclear dispersion contribution to high-energy electron scattering. 983.
- Schiffer, John P.* Energy levels in Ca^{42} and Ca^{44} . 582.
- , *J. P., Windham, P. M., Gossett, C. R. and Phillips, G. C.* Inelastic scattering of protons from isotopes of Mn, Ni and Cu. 1789.
- s. *Gossett, C. R.* 1591.
- s. *Phillips, G. C.* 1789.
- Schiller, P.* Dämpfung elastischer Schwingungen durch Wirbelströme im Magnetfeld. 730.
- , *Ralph.* Interpretation of the Dirac equation. 5.
- Particle motion in nonrelativistic quantum theory. 362.
- , *R. s. Bohm, D.* 898.

- Schilling, H.* Thermokraftmessungen an Kupferoxydul im Existenzgebiet. 1223.
- , *W.* Transduktortechnik. II. Spannungssteuernder Transduktor. 1243.
- Schillinger, E. J. s. Fields, T.* 2133.
- Schillmann, E.* Einbau und Wirkung von Fremdstoffen in Indiumarsenid. 2118.
- Diffusion von Fremdstoffen in Indiumarsenid. 2118.
- Schimmel, G. s. Brüche, E.* 337.
- , *Gerhard s. Narath, Albert.* 2534.
- Schimmer, B. s. Faissner, H.* 2044.
- Schindewolf, U.* Anisotropie der Leitfähigkeit strömender Polyelektrolytlösungen. II. 828.
- Schindler, A. I. s. Kammer, E. W.* 1446.
- , *Albert I. and Salkovitz, Edward I.* Ferromagnetic Hall coefficient of nickel alloys. 2113.
- Schindowski, E.* Wahrscheinlichkeitsrechnung in Technik und Wirtschaft. VI. Grundzüge der Abnahmeprüfungen an Stichproben. 1492.
- Schinz, H. R. and Mauderli, W.* Röntgenstrahlenabsorption von Hämderivaten. 704.
- und *Wäffler, H.* Absorption von Röntgenstrahlung im lebenden Gewebe. Versuch einer elementaren Darstellung für Medizinstudenten. 1090.
- Schipper, C. s. Addink, N. W. H.* 496.
- Schippers, Margarete s. Kostron, Hans.* 2543.
- Schirmer, H.* Theorie der elektrischen Leitfähigkeit eines Plasmas. 145.
- Theorie der Wärmeleitfähigkeit eines Plasmas. 1046.
- Schlaeppli, H.* Entwicklung einer programmgesteuerten elektronischen Rechenmaschine am Institut für angewandte Mathematik der ETH. 1091.
- Schlechtweg, H.* Problematik des Entlastungsvorganges nach plastischer Verformung. 1727.
- *s. Glatzel, E.* 1213, 2297.
- Schlegel, F.* Schallaufnahmeprobleme. 742.
- , *Richard.* Relativistic statistical mechanics of an ideal gas. 384.
- , *R. and Lee, J. C.* Are X-ray tube demonstrations safe? 514.
- Schleich, F. s. Schreil, W.* 1274.
- Schlemmermeier, R.* Tagung Regelungstechnik vom 1. bis 3. September 1953 in Bonn. 2257.
- Schlemmermeier, V. s. Kühlenkamp, A.* 2257.
- Schleussner, C. A. und Schumann, G.* Bestimmung der Empfindlichkeit und Gradation von Röntgen-Folien-Filmen mit dem Blaulicht-Verfahren. 1277.
- Schlichting, H.* Berechnung der laminaren Reibungsschicht bei Überschallgeschwindigkeit. 1947.
- , *Hermann.* Berechnung der reibungslosen inkompressiblen Strömung für ein vorgegebenes ebenes Schaufelgitter. 205.
- Schlier, R. E.* Structure of evaporated copper films on titanium. 1013.
- , *Farnsworth, H. E. and George, T. H.* Low-energy electron diffraction studies of a titanium crystal surface. 638.
- *s. Burger, R. M.* 2472.
- *s. Farnsworth, H. E.* 638.
- Schlögl, F.* Anregung von Kern-Dipolschwingungen durch schnelle Elektronen. 2392.
- Schlömann, Ernst s. Leibfried, Günther.* 2312.
- Schlomka, T. s. Epheser, H.* 2263.
- Schlüter, A.* Zusammenhang der Schwingungsformen eines Plasmas. 2235.
- Plasma im Magnetfeld. 2235.
- *s. Lüst, R.* 734.
- Schluter, R. A.* Neutral pion-deuteron production in 400-Mev n-p collisions. 396.
- Schmauch, H. s. Seemann, H. J.* 2541.
- Schmellenmeier, H.* Gerät zum fortlaufenden Einfüllen definierter, dauernd gleichbleibender Gasmengen in Vakuumgefäße. 192.
- *s. Germey, K.* 1050.
- Schmelzer, Christoph s. Heinze, Dieter.* 315, 316.
- Schmerling, E. R. and Thomas, J. O.* Distribution of electrons in the undisturbed F_2 layer of the ionosphere. 1285.
- *s. Ratcliffe, J. A.* 1285.
- Schmid, A. E. s. Lufcy, C. W.* 908.
- Schmid, E. und Lintner, K.* Bedeutung eines Bombardements mit Korpuskularstrahlen für die Plastizität von Metallkristallen. 2397.
- *s. Futschik, F.* 2173.
- *s. Lintner, Karl.* 1388.
- *s. Neumann, B.* 776.
- Schmid, Erich und Lintner, Karl.* Bedeutung eines Elektronenbombardements

- für die Plastizität von Metallkristallen. 776.
- Schmid, Gerhard und Spähn, Heinz.* Chemisches Glänzen von Messing und Neusilber. IV. Elektrochemie des Glanzungsvorganges. 2162.
- , *Günther.* Bestimmung der Elektrostriktionskonstanten Q_{11} von Bariumtitanatkeramik. 2167.
- Schmid, H. s. Viscontini, M.* 876.
- , *L. C. s. Cork, J. M.* 61, 964, 1162, 1556, 1566, 2377.
- Schmidt, A. C. s. Day, R. P.* 158.
- , *Ernst.* Düsenflugzeug und Raketenantrieb. 1506.
- , *F. C. s. Peacock, John.* 2322.
- , *F. H., Farwell, G. W., Henderson, J. E., Morgan, T. J. and Streib, J. F.* University of Washington sixty-inch cyclotron. 390.
- , *s. Keister, G. L.* 583.
- , *s. Penning, J. R.* 1158.
- , *Fred H. s. Yavin, Avivi I.* 1581.
- , *H. und Schrick, K. W.* W Ursae Majoris-Sterne. I. Lichtelektrische Beobachtungen von VW Cephei. 176.
- , *Heinrich.* Tonfilmtechnik. 2304.
- , *Hermann s. Holleck, Ludwig.* 1042.
- , *Ingeborg.* Testing color vision with the Nagel anomaloscope. 1476.
- , *Irene.* Mechanismus der photographischen Entwicklung. 1468.
- , *Mechanismus der photographischen Entwicklung.* 2534.
- , *Ruth A. M.* Microradiography of microfossils with X-ray diffraction equipment. 495.
- , *Theodor.* Herleitung des Strömungsradius. 1698.
- , *Uwe.* Objekttrue von Phasenkontrastbildern handelsüblicher Phasenkontrastmikroskope. 2520.
- Schmitt, Hans Jürgen s. Meyer, Erwin* 1868.
- , *H. W. s. Gibbons, J. H.* 1144.
- , *s. Leachman, R. B.* 1545.
- , *Ottobans s. Werther, Walter von.* 2502.
- , *R. G. s. Hirt, R. C.* 2062.
- , *R. W.* Electrical resistivity minimum reported in copper-zinc alloys. 132.
- , *Effect of order-disorder on the low-temperature resistance maximum.* 281.
- , *Fiske, M. D.* Electrical resistivity minimum and structural defects in copper. 125.
- Schmitz, G. und Schick, K.* Integration der Elenbaas-Hellerschen Differentialgleichung. 671.
- Schmutzer, E. s. Falkenhagen, H.* 806, 2481.
- , *Ernst.* Einheitliches Variationsprinzip für die mechanischen, elektrodynamischen und Gravitations-Grundgesetze. 1293.
- , *Einfluß des Kovolumens auf die Aktivitätskoeffizienten und Diffusion starker Elektrolyte.* 2483.
- Schneider, E. E. s. Hesketh, R. V.* 2423.
- , *G. s. Haase, G.* 1108.
- , *H. s. Sempert, M.* 2389.
- , *Hans.* Untersuchungen an ^{14}C mit dem Szintillationszähler. 35.
- , *Tragbares Szintillationsgerät für Anwendungen in der Geologie.* 180.
- , *W. Heribert.* Plasma-Kenngrößen einer Quecksilber-Niederdruck-Entladung mit mehreren Elektronengruppen. 1046.
- , *Plasma-Kenngrößen einer Quecksilber-Niederdruck-Entladung mit mehreren Elektronengruppen.* 2493.
- Schneider-Carius, Karl.* Passat. 2581.
- , *und Faust, Heinrich.* Grundschrift und Nullschicht der Atmosphäre. 2251.
- Schnepp, O. s. Fox, David.* 627.
- Schneps, J., Swami, M. S. and Fry, W. F.* Disintegration of hyperfragments. 1994.
- , *s. Fry, W. F.* 393, 562, 938, 1526, 1754, 1755, 1778, 1994, 2000.
- Schnittger, Jan R.* Stress problem of vibrating compressor blades. 19.
- Schnürer, E.* Absorptions- und Leitfähigkeitsmessungen an CdS im weichen Röntgengebiet. 1225.
- Schober, H.* Informationstheorie in Optik und Fernsehen. 2334.
- , *und Klett, C.* Zeichenschärfe von Verstärkerfolien. II. 1277.
- , *Herbert s. Evers, Editha.* 1905.
- Schöfer, Rudolf s. Heywang, Walter.* 1444.
- Schoen, J. s. Eigen, M.* 654.
- Schönborn, Herbert.* Gleichgewichtseinstellungen in Gläsern zwischen Raumtemperatur und 100°C . 2076.
- Schoeni, Kurt s. Lehovec, Kurt.* 1229, 2135.
- Schoepfle, G. K. s. Silvini, A. A.* 1745.
- Schofield, P. s. Pople, J. A.* 1400.

- Schofield, T. H.* Apparatus for heattreatment and quenching small specimens in a vacuum from high temperatures. 1723.
- Schoknecht, G. s. Hosemann, R.* 2259.
- Scholes, G. s. Daniels, M.* 1276.
- Schomaker, Verner s. Waser, Jürg.* 103.
- *s. Wood, William W.* 100.
- Schonland, B. F. J. s. Malan, D. J.* 529.
- *D. S. s. Irving, J.* 565.
- Schoonover, I. C. s. Mitchell, J. A.* 2546.
- Schooten, J. van s. Harmsen, G. J.* 1206, 1636.
- Schopper, E. s. Janner, K.* 760.
- *H.* Erzeugung von linear polarisiertem Licht durch Reflexion an beschichteten Metallen. 2525.
- *s. Clausnitzer, G.* 1391.
- *Herwig.* Optische Untersuchung der Diffusion von Metallen ineinander. 631.
- Kernresonanzstreuung von γ -Strahlen an V^{51} . 1358.
- Optische Eigenschaften und Aufbau dünner Metallschichten. 1634.
- Schorer, Georg F.* Normfarbkasten. 2555.
- Schott, Claus s. Jaenicke, Walther.* 1468.
- Schrader, Angelica s. Wever, Franz.* 1269.
- *Hans-Jürgen.* Wechsellspannungsquelle hoher Konstanz mit Normalfrequenz. 1845.
- Schramek, W. und Schröder, H. J.* Offene Röntgenröhre mit wassergekühlter Drehanode. 1251.
- Schrank, G.* Elastic scattering of 17-Mev protons by nuclei. 419.
- *Gugelot, P. C. and Dayton, I. E.* Direct interaction in $Fe^{56} (p, p') Fe^{56}$. 416.
- *s. Aron, W.* 244.
- *Glen E. s. Burkgig, J. W.* 1797.
- Schreckenbach, Max.* Gleitwiderstand und Verfestigung von Metallen. 334.
- Schreiber, H. P. and Benson, G. C.* Edge energies of alkali halide crystals. 1940.
- Schreil, W.* Dauerhaftigkeit von Palavit-abdrücken in der Elektronenmikroskopie. 1469.
- und *Schleich, F.* Elektronenmikroskopische Untersuchungen an lebenden Bakterien mit Hilfe des Abdruckverfahrens. 1274.
- Schremp, E. J.* Isotopic spin and the group space of the proper Lorentz group. 1927.
- Schrenk, W. G. and Glendening, B. L.* Performance of interference filters in simple flame photometer. 1273.
- Schrick, K. W. s. Schmidt, H.* 176.
- Schrieber, Barbara, Dwight s. Hanson, A. O.* 1544.
- Schröck-Vietor, W. s. Hellwege, K. H.* 1183.
- Schröder, F.-K.* Schallschluckgrad als Funktion des Schalleinfallswinkels. 208.
- *Gerd s. Kern, Werner.* 1835.
- *Hubert.* Angreifbarkeit des Glases durch Lösungen mit p_H -Werten nahe 7. 2215.
- Schroeder, H. H. s. Hass, Georg.* 2520.
- Schröder, H. J. s. Schramek, W.* 1251.
- *J.* Fehlerabschätzungen zur Störungsrechnung für lineare Eigenwertprobleme bei gewöhnlichen Differentialgleichungen. 2261.
- *M.* Eigenfrequenzstatistik und Anregungsstatistik in Räumen. 2302.
- *s. Brenig, W.* 1959.
- Schrödinger, E.* Wave equation for spin 1 in Hamiltonian form. I. II. 720.
- *s. Bass, L.* 720.
- Schröter, Fritz.* Speicherempfang und Differenzbild im Fernsehen. 489.
- Schubert, H. und Baumann, H. P.* Imidazol-Parahämaminspektren des Hämins im Wellenlängenbereich von 2400—6300 Å. 2558.
- Schubert, Hans.* Potentiale der auf dem Mantel eines Kreiszylinders ausgebreiteten einfachen und doppelten Belegung. 464.
- *Jack s. Russell, Edwin R.* 2230.
- *Konrad.* Ortskorrelation der äußeren Elektronen bei den Strukturtypen $CuAu(Ll_0)$, $PdCu(L2_0)$ und $Cu_3Au(L1_2)$. 868.
- Atomistische Betrachtungen über den Einfluß von Zusatzelementen auf den Polymorphismus des Eisens. 2213.
- Schuberth, Hans.* Naturwissenschaft und Technik. 1489.
- Schuch, R. L. s. Van Dilla, M. A.* 2342.
- Schücker, J. s. Lange, E.* 137.
- Schüler, Friedrich.* Echogramme bei Seitenechos. 2578.
- Handlotungen und Echolotungen in der Seevermessung geringer Wassertiefen in strömenden Gewässern. 2580.

- Schüler, H. u. Michel, A. Spektroskopischer Nachweis des Benzyl- und des Benzalradikals ($C_6H_5\dot{C}H_2$ und $C_6H_5\dot{C}H$). 102.
- , Bandensystem des OH-Radikals oder Ions. 2061.
- Schuepp, P. et Gion, L. Contraintes mécaniques internes d'origine thermique dans les isolateurs en porcelaine soumis à des variations de température. 546.
- Schütt, Klaus. Entladungsmechanismus im argongefüllten Proportionalzähler. 1972.
- *Schütte, Karl. Index mathematischer Tafelwerke und Tabellen aus allen Gebieten der Naturwissenschaften. 893.
- Schuhl, C. s. Basile, R. 761.
- Schuhmacher, G. s. Freudenberg, K. 2412.
- Schuler, Robert H. Effect of iodine on the infrared spectra of the alkyl iodides. 1816.
- Short-lived radioactivity; correction for long counting periods. 2024.
- Schuller, H. s. Schacht, L. 639.
- s. Scheibe, G. 637.
- , Helmut. Oberflächenkompressibilität und Molekülpackung gespreiteter hochpolymerer Substanzen. 1414.
- Schulman, J. H. s. Etzel, H. W. 630, 1626.
- , James H. and Ginther, Robert J. Properties of single crystals of NaF-sensitized CaF_2 . 630.
- , Klick, Clifford C. and Rabin, Herbert. Measuring high doses by absorption changes in glass. 343.
- Schulte, G. s. Wachsmann, F. 344.
- , H. F. s. Sicinski, H. S. 914.
- , H. J. s. Camac, M. 1344.
- , Harry J. s. Johnston, Lawrence H. 1517.
- Schulte-Vennbur, Hermann. Niederschlagsstrukturen von Zyklonen in Nordamerika. 2252.
- Schulten, R. s. Gaus, H. 234.
- Schultz, B. H. Analysis of the decay of photoconductance in germanium 1431.
- , Cramer and Thompson, Ross D. F. Polarization effects in electron-photon interactions. 1886.
- , H. L. and Wadley, W. G. Electronic instrumentation for the Yale slow-neutron velocity selector. 556.
- Schultz, Hermann s. Krautz, Erich. 1021.
- , H. L. s. Wadley, W. G. 558.
- , W. und Harten, H.-U. System Gasphase/Halbleiter und das System Metall/Halbleiter. 1215.
- s. Harten, H.-U. 1217.
- Grunow, F. Viskosität und die Rolle der Thermodynamik bei rheologischen Flüssigkeiten. 1307.
- Schultze, Ernst. Erregung reiner Eigenschwingungen von Flugzeugflügeln. Anwendung der Theorie der Integralgleichungen. 737.
- , H. E. Anwendung physikalisch-chemischer Methoden zur Charakterisierung der Plasmaproteine. 1901.
- , K. Kapillares Paradoxon. 268.
- Schulz, Arno s. Kluge, Werner. 670, 839, 2164.
- , Dieter. Temperaturabhängigkeit der Dispersion ultravioletter Strahlen in Wasser. 1884.
- , G. s. Kunze, P. 1975.
- , G. V. Energetische und statistische Voraussetzungen für die Synthese der Makromoleküle im Organismus. 872.
- Bestimmung des mittleren Molekulargewichts (M_n) von polymolekularen Stoffen. 1837.
- und Cantow, H.-J. Zusammenhang zwischen den thermodynamischen Zustatzgrößen und den Virialkoeffizienten makromolekularer Lösungen. Zu Reik, H. G. und Gebert, F.: Thermodynamik verdünnter makromolekularer Lösungen. I. 2436.
- , Bodmann, O. und Cantow, H.-J. Differentialrefraktometer. 2522.
- , Henrici, G. und Olivé, S. Übertragungskonstanten von Polystyrol und Polymethylmethacrylat und das Problem der Molekülverzweigung. 1834.
- , George J. and Brown, Sanborn C. Microwave study of positive ion collection by probes. 1042.
- , Gustav. Röntgenstrahlen mit Energien unter 100 eV. 1066.
- Schulz, K. s. Suhrmann, R. 115, 2090.
- , Rolf s. Kern, Werner. 1835.
- Schulz, Du Bois, Erich. Ambipolare Diffusion und Bildung negativer Ionen im verlöschenden Sauerstoffplasma. 1867.
- Dielektrische Dispersion polarer Flüssigkeiten. 1868.

- Schulz, E., Nisenoff, M., Fan, H. Y. and Lark-Horovitz, K.* Spin resonance in neutron irradiated silicon. 2125.
- Schulze, E.* Schalt- und Spannwerke. 1291.
- Energieübertragung mit Gleichstrom. 1491.
- , *H. s. Lehmann, K.* 2494.
- Schumacher, Arnold.* Stereophotogrammetrische Wellenaufnahmen mit schneller Bildfolge. 2579.
- , *Berthold W.* Pictures of gas-streams at low-gas density taken by means of electrons. 547.
- , *E. s. Chusius, K.* 902.
- , *Robert T. and Slichter, Charles P.* Electron spin paramagnetism of lithium and sodium. 1643.
- Schumann, Eberhard.* Notwendigkeit und Vorschlag einer reproduzierbaren Ultraschalldosierung bei Behandlung mit bewegtem Schallkopf. 1903.
- , *G. s. Haxel, O.* 1702.
- *s. Schleussner, C. A.* 1277.
- , *W. O.* Beeinflussung der Ausbreitung sehr langer elektrischer Wellen durch das Magnetfeld der Erde. 847.
- , *Winfried Otto.* Einfluß des horizontalen Erdmagnetfeldes auf elektrische Wellen zwischen Erde und Ionosphäre, die schräg zum magnetischen Meridian verlaufen. 2506.
- Schuru, J., Treiber, E. und Toplak, H.* UV-Untersuchungen über den C=O- und den C=NH-Chromophor. 2413.
- Schurz, Josef.* Berechnung der Schubspannung für das Kugelfall-Viskosimeter. 1504.
- **Schuster, Fritz.* Tabellen für das Gasfach. 1.
- , *K.* Theorie der Abbildung eines Einzelstreifens nach dem Phasenkontrastverfahren. 312.
- Schallsichtgerät zur Prüfung von Blechen und Platten. 1893.
- Schuurman, W. s. Michels, A.* 2288.
- Schwab, G.-M.* Emil Abel zum 80. Geburtstag. 182.
- , *George-Maria.* Nature and applications of inorganic alumina chromatography. 459.
- Gegenwärtiger Stand der wissenschaftlichen Erforschung der technischen Katalyse. 1321.
- Schwabe, E. s. Andrä, W.* 2451.
- Schwabe, G.* Richtungsabhängiger Photoeffekt an PbS-Schichten. 476.
- , *K.* Inhibitorwirkung bei Elektrodenprozessen. 656.
- Max Volmer zum 70. Geburtstag. 1490.
- Thermochemische Untersuchungen an den isomeren Hexachlorcyclohexanen. 1509.
- Leitungsmechanismus in Passivschichten. 2162.
- und *Berg, H.* Reaktionsgeschwindigkeitsmessungen mit dem Polarographen. I. Grundlagen der Methode und Anwendung auf Citralreaktionen in saurem und basischem Medium. 2323.
- III. Zusammenhänge zwischen Reduktionsgeschwindigkeiten im homogenen System und polarographischen Halbstufenpotentialen. 2324.
- Schwabe, Karl und Glöckner, G.* Elektromotorisches Verhalten von Glaselektroden in stark sauren Lösungen. 655.
- und *Rammelt, P. P.* Photochemische Bildung von Hexachlorcyclohexan. 2201.
- mit *Trobisch, K.* Deutung des Einflusses von Inhibitoren auf Elektrodenvorgänge. 1230.
- und *Voigt, J.* Reaktionskinetische Untersuchungen mit dem Polarographen. II. Kinetik der katalytischen Acetylen-Hydratation in schwefelsaurer Lösung. 2324.
- , *Ohloff, G. und Berg, H.* Polarographische Studien an Terpendervaten. III. Natürliche und synthetische monocyclische Fünfringketone. 140.
- , *Kurt.* Fortschritte der Potentiometrie. 2146.
- , *R. s. Umstätter, H.* 2077.
- Schwalgin, Karl.* Katodenstrahlröhre für symmetrische oder asymmetrische Ablenkung. 1015.
- Schwan, H. P. and Sittel, Karl.* Wheatstone bridge for admittance determinations. 462.
- Schwartz, A.* Jahreshauptversammlung des VDE in Berlin. 2257.
- , *Charles.* Theory of hyperfine structure. 1807.
- Hyperfine structure anomaly in atomic P-states. 1807.
- , *D. s. Markstein, G. H.* 1949.
- , *Ira s. Katz, Milton S.* 1475.

- Schwartz, Manuel and Copeland, Paul L.* Secondary emission by positive ion bombardment. 484.
- , *R. B., Corbett, J. W. and Watson, W. W.* Alpha-particle bombardment of A^{36} and A^{40} . 2367.
- , *R. N., Slawsky, Z. I. and Herzfeld, K. F.* Calculation of vibrational relaxation times in gases. 1507.
- , *Robert B., Corbett, James W. and Watson, William W.* Protons from the alpha bombardment of A^{36} and A^{40} . 1770.
- *Robert, N. and Herzfeld, Karl F.* Vibrational relaxation times in gases (three-dimensional treatment). 927.
- Schwarz, E.* Permanent vacuum seal. 368.
- , *N. and Bezemer, C.* Equation for the size distribution of emulsion particles. I. Derivation and application to experimental data. 1636.
- *s. Bezemer, C.* 1636.
- Schwarzmann, Gertrude T.* Classical microphysics. 360.
- , *Gertrude.* Eccentric circular orbits. 366.
- , *Gertrude T.* Physical significance of the three quantum numbers. 362.
- Schwebel, A. s. Caswell, R. S.* 955.
- Schweber, S. S.* Yang-Feldmann formalism. 362.
- Reduction formulae in field theory. 719.
- Schved, P., Cooper, H. and Webeler, R. W.* Thermoelectric power of AuCu in non-equilibrium states. 1872.
- , *Philip s. Grootzinger, Gerhart.* 125.
- Schweimler, H. C. s. Stevens, D. K.* 1855.
- Schweitzer, George K. and Stein, Bernard R.* Measuring solid samples of low-energy beta emitters. 929.
- Schwerdtfeger, Werner.* Wettervorhersage durch numerische und durch statistische Methoden. 2583.
- , *W. J.* Electrical measurements in the selection of bolt materials for service underground. 2541.
- Schwartz, F. A. and Freund, R. E.* Voltage dependence of electroluminescent brightness. II. Chemically deposited phosphor films. 1263.
- and *Mazenko, J. J.* Light output from dielectric-imbedded electroluminescent phosphors. 1071.
- and *Michalik, E. R.* Voltage-dependence of electroluminescent brightness. I. Dielectric-imbedded phosphors. 1263.
- Schweisinger, Gerhard.* Optical effect of flexure in vertically mounted precision mirrors. 1695.
- Schwetman, Herbert D. and Brown, S. Leroy.* Application of the Laplace transformation and a mechanical harmonic synthesizer in the analysis of electric circuits. 488.
- Schwieger, H.* Spannungsoptische Stoßuntersuchungen an dünnen Glasstäben. 912.
- und *Fiedler, H.* Spannungsoptische Bestimmung des thermischen Ausdehnungskoeffizienten von Gläsern. 1961.
- Schwiete, H. E. und Zagar, L.* Physikalische Grundlagen der Tränkungs Vorgänge an porösen Systemen. 2288.
- Schwink, Christoph.* Einfluß des inneren Zustands auf die Polpunktslage magnetisierter Nickeldrähte. 869.
- Scar, N. and Burstein, E.* Optical and impact recombination in impurity photoconductivity in germanium and silicon. 1025.
- *s. Burstein, E.* 482.
- Scofield, N. E. s. Howland, P. R.* 387.
- Scoins, H. I. s. Rushbrooke, G. S.* 1405.
- Scolman, T. T., Quisenberry, K. S. and Nier, A. O.* Mass doublet measurements with the Minnesota 16-inch mass spectrometer. 1139.
- *s. Quisenberry, K. S.* 37, 1139.
- Scorgie, D. G. and Schaefer, D. H.* Steady-state behavior of carbon-pile regulators. 543.
- Scotoni, I. s. Bassi, P.* 1322.
- Scott, F. R. s. Bendt, P. J.* 56.
- , *G. David.* Optical constants of thin-film materials. 860.
- , *G. D. s. Aziz, R. A.* 640.
- , *G. G.* Gyromagnetic ratio of iron at low magnetic intensities. 1211.
- , *Gyromagnetic ratio of nickel at low magnetic intensities.* 2456.
- , *J. C. W. s. Chatterjee, B.* 525.
- , *J. M. C.* Neutron-widths and the density of nuclear levels. 400.
- Retardation of alpha particles when capture and loss occur. 2033.
- and *Titterton, E. W.* Search for the negative proton in fission. 2003.
- , *M. s. Goldschmidt-Clermont, Y.* 940.

- Scott, M. B., Hanson, A. O. and Kerst, D. W. Electro and photodisintegration cross sections of Cu^{63} . 2015.
- , Mary Jean and Segel, Ralph E. Polarization in P- α elastic scattering. 1168.
- , — Fast neutron reactions in KI(Tl) crystals. 1555.
- , P. H., Clark, George C. and Sliepcevich, C. M. Light transmission measurements on multiple-scattering latex dispersions. 2086.
- , R. B. s. Armstrong, George T. 2319.
- , W. E. List of recent publications. 518.
- List of recent publications. 883.
- , William T. Multiple Coulomb scattering including nuclear size effects. 1374.
- s. Goldberg, Jean Snover. 1586.
- Scotti, A. s. Colombo, S. 599.
- s. Duimio, F. 720.
- Scovil, Georgiana W. Hall effect in titanium. 125.
- , H. E. D. s. Bleaney, B. 2108.
- Scrafford, R. L. Hydraulic servos with hydraulic-amplifier value. 543.
- Scrivins, J. s. Lambert, J. D. 16.
- Scorocco, M. s. Caglioti, V. 1276, 1691.
- Scudder, John s. Rugh, Roberts. 1479.
- Scurlock, R. G. s. Bishop, G. R. 237.
- s. Cacho, C. F. M. 1140.
- Seaborg, Glenn T. Evidence for subshell at $Z = 96$. 565.
- , Glenn I. und Ghiorso, Albert. Zukünftige transuranische Elemente. 2337.
- , Glenn T. s. Nर्वik, Walter E. 56, 577.
- , G. T. s. Folger, R. L. 407.
- s. Ghiorso, A. 1322.
- s. Glass, R. A. 577.
- Seagrave, J. D. s. Ribe, F. L. 1352.
- , John D. Recoil deuterons and disintegration protons from the n—d interaction, and n—p scattering at $E_n = 14.1$ Mev. 420.
- Elastic and inelastic scattering of 14-Mev neutrons by deuterons. 604.
- and Henkel, Richard L. Total cross section of deuterium for neutrons from 0.2 to 22 Mev. 980.
- Seaman, M. S. s. Attree, V. H. 307.
- Searcy, Alan W. s. Freeman, Robert D. 1514.
- Sears, G. W. Flow of gases through very fine tubes. 2442.
- Seaton, M. J. Calculations on electron excitation of forbidden lines: transitions with electric quadrupole moments. 621.
- Seaton, M. J. Theories of the airglow spectrum. 1285.
- Cross sections for 2s—2p transitions in H and 3s—3p transitions in Na produced by electron and by proton impact. 1399.
- , N. T. Absolute differential range spectrum of low-energy cosmic-ray μ -mesons. 424.
- Sebaoun, Wilfrid. Activité spécifique du radium. 2361.
- Sebastian, H. Fehlanzeigen der Flugzeughöhenmesser durch Abweichungen von der Normalatmosphäre. 1486.
- Sebban, Jeanne s. Chapiro, Adolphe. 637.
- Sebban-Danon, Mme J. s. Prevot-Bernas, Mme A. 1836.
- Sechi, B. s. Baldo, M. 393.
- s. Ceccarelli, M. 763.
- s. Davies, J. H. 763.
- Seddon, J. Carl. Electron densities in the ionosphere. 887.
- , J. C. and Jackson, J. E. Absence of bifurcation in the E-layer. 180.
- et Jackson, J. E. Application des fusées à l'étude de l'ionosphère. 1484.
- , Pickar, A. D. and Jackson, J. E. Continuous electron density measurements up to 200 km. 887.
- Sedra, K. N. and Hazzaa, I. B. Effect of radiation from solar flares on the ionosphere and the earth's magnetic field. 1914.
- Seeds, W. E. s. Hooper, C. W. 1001.
- Seeger, Alfred. Elektronentheoretische Untersuchungen über Fehlstellen in Metallen. I. Gitterfehlerstellen in Nickel, Kobalt und ihren Legierungen. 1425.
- , Karlheinz. Verzögerte Elektronenemission von Metallen. 149.
- Seeman, N., Shapiro, M. M. and Stiller, B. Cosmic-ray observations of $K \pm$ mesons. 1134.
- s. Stiller, B. 1337, 1521.
- , Nathan, Shapiro, Maurice M. and Stiller, Bertram. Nonmesonic decay of a helium hyperfragment. 2350.
- , F. W. s. Hahn, Dietrich. 167.
- , Hugo. Methoden zur projektiven Abbildung des Kristallbaues mittels Röntgenstrahleninterferenzen. 789.
- , H. J. et Schmauch, H. Détermination des constantes élastiques des maté-

- riaux métalliques par des mesures de propagation du son; application au cas des fontes. 2541.
- Seemann, H. J.* und *Staats, H.* Grundsätzliches zur Anwendung einer Schwingungsbehandlung in der Metallurgie. Gesichtspunkte für die Entwicklung leistungsfähiger Anlagen zur Behandlung von metallischen Werkstücken und Metallschmelzen mit intensiven mechanischen Schwingungen. 1893.
- Segaert, O. J. A.* s. *Lemmer, H. R.* 75.
- Segal, Leon, Loeb, Leopold* and *Creely, Joseph J.* X-ray study of the decomposition product of the ethylamine-cellulose complex. 925.
- Segall, Benjamin.* Nuclear shapes at half-filled shells. 48.
- Segel, R. E.* and *Hanna, S. S.* Polarization measurement in the $D(d, p)H^3$ reaction. 1377.
- , *Ralph E.* s. *Scott, Mary Jean.* 1168, 1555.
- , *S. L.* and *Lutz, B. C.* Impurity effects on nuclear quadrupole spectrum of C^{13} . 2458.
- Segleken, W. G.* and *Torrey, H. C.* Quadrupolar splitting of nuclear resonance lines in the alums. 2459.
- Segrè, E.* s. *Chamberlain, O.* 85, 1759, 2003.
- s. *Tripp, R.* 973.
- s. *Ypsilantis, T.* 976.
- , *Emilio.* Fermi and neutron physics. 948.
- Sequin, Paul* s. *Gans, François.* 1649.
- Seidel, G. M.* and *Johnson, V. A.* Verification of the Bridgman relation for a mixed semiconductor. 129.
- Seiden, J. s. Hubert, P.* 2206.
- , *Joseph.* Elimination des effets des défauts d'alignement dans le cosmotron à forte convergence. 391.
- Effets des défauts magnétiques dans un cosmotron à forte convergence. 391.
- Amortissement des oscillations bêta-troniques dans le cosmotron. 1329.
- Seidl, Franziska.* Einwirkung verschiedener Strahlenarten auf Piezoquarze und Schwingkristalle. 2498.
- , *F. G. P.* Mechanical improvements in the Brookhaven fast chopper. 1326.
- , *K.* Dynamik der Synchronmaschine als Maßstab ihrer regeltechnischen Bemessung. I. 302.
- Seifert, H.* Epitaxie und ihre allgemeine Bedeutung. 107.
- , *Buhl, R.* und *Seifert, K.-F.* Feinstrukturelle Überlegungen zu Adsorptionsvorgängen an Quarzgrenzflächen. 1203.
- , *K.-F.* s. *Seifert, H.* 1203.
- Seipt, M.* s. *Fischer, H.* 295.
- Seith, W.* s. *Wever, H.* 1041.
- , *Wolfgang.* 1489.
- und *Gonser, Ulrich.* ThB und ThC als Radioindikatoren in der physikalischen Chemie der Metalle. 333.
- Seitz, F.* Source of disordering of alloy during irradiation. 1174.
- , *Frederick.* Fermi statistics and its applications. 716.
- s. *Harrison, W. A.* 1174.
- , *J.* und *Huber, P.* Wirkungsquerschnitt der $O^{16}(n, \alpha)C^{13}$ -Reaktion für schnelle Neutronen. 1142.
- Sekera, Zdenek* s. *Deirmendjian, Diran.* 1288.
- Seki, Yoshinobu.* Striation observed in electron-micrographs of sericite. 2537.
- Sekido, Yataro* and *Yagi, Teiichiro.* Deflection of cosmic rays in the solar magnetic field. 2398.
- , *Yoshida, Sekiko* and *Kamiya, Yoshiko.* Anisotropy of cosmic rays observed with an Alt-azimuth telescope. 2043.
- Sekora, A. s. Kratky, O.* 2431.
- Selby, M. C., Wolzien, E. C.* and *Jickling, R. M.* Coaxial radio-frequency connectors and their electrical quality. 304.
- Selényi, P.* †. 1489.
- Seliger, H. H.* Transmission of positrons and electrons. 1600.
- s. *Ziegler, C. A.* 388.
- Seligman, H.* s. *Cook, G. B.* 2348.
- , *Henry* s. *Bullard, E. C.* 1933.
- Selin, Lars-Erik* s. *Lagerqvist, Albin.* 2408.
- Selke, W. A.* s. *Makansi, M. M.* 2319.
- Sellen, J. Michael jr.* s. *Moravcsik, Michael J.* 1126.
- Selove, W.* Resonant effects and spin dependence in potential scattering of slow neutrons. 604.
- Angular distribution of pickup deuterons for 95-Mev protons on carbon, and implications as to internal interactions in carbon. 949.
- (p, d) pick-up deuteron measurements at 95 Mev. 2365.
- s. *Teem, J. M.* 976.

- Selove, Walter.* Summary of communication by Enrico Fermi on meson physics. 2255.
- Summary of communication by J. Robert Oppenheimer on recent progress in the understanding of nuclear forces. 2255.
- Selvin, G. s. Stang, L. G. jr.* 702.
- Selzer, E. s. Burkhart, K.* 1086.
- Semmler, Jürgen.* Dielektrische und viskosimetrische Messungen an dünnen Schmiermittelschichten. 1272.
- Sempert, M., Schneider, H. und Martin, M.* Elastische Streuung von Protonen an O^{16} zwischen 3 und 7 MeV. 2389.
- Sen, H. K.* Noise generation by oscillating plasmas, and non-linear plasma theory. 481.
- , *Hari K.* Structure of a magnetohydrodynamic shock wave in a plasma of infinite conductivity. 2110.
- , *K. K.* Estimate of the optical thickness of a spherically symmetric, non-conservative scattering atmosphere. 1698.
- , *P.* Non-local quantum electrodynamics. 1927.
- Mass spectrum from a field theory model of the non-local theory. 1929.
- , *R. N.* Vector space. 2259.
- Sendner, Harry.* Berechnung von Gezeitenstrom- und Gefällsellipsen. 2579.
- Senent, F. s. Catalá, J.* 972.
- Senftle, F. E. und Learitt, W. Z.* Activities produced by thermal neutrons. 238.
- Sengupta, S.* Nuclear electric quadrupole moment of Na^{23} . 401.
- Seniga, G. s. Bonauguri, E.* 2275.
- Senio, O. s. Tucker, C. W. jr.* 1176.
- Senitzky, B. s. Perl, M. L.* 1807.
- , *I. R.* Quantum effects in the interaction between electrons and high-frequency fields. 4.
- , *J. R.* Quantum effects in the interaction between electrons and high-frequency fields. II. 1180.
- Septier, A.* Mesure de la répartition des champs électromagnétiques dans une cavité résonnante. 152.
- , *Albert.* Etude expérimentale de l'objectif à immersion électrostatique à électrodes planes: champ extracteur E_0 dans les conditions de focalisation. Aberrations géométriques en dehors de l'axe. 1686.
- Septier, Albert.* Obtention d'images électroniques de surfaces bombardées par des ions. 1686.
- Ser, S. s. Souchay, P.* 830.
- Serber, R. s. Pais, A.* 1992.
- , *Robert and Rarita, William.* Proton-proton scattering at high energies. 244.
- Seren, Leo s. Birnbaum, Milton.* 40.
- Serin, B.* Structure of the intermediate state of superconductors. 468.
- Serment, V. s. Mazari, M.* 2037.
- Serra, J. M. s. Amorós, J. L.* 629.
- Serruys, Max.* Possibilité d'assimilation d'un écoulement gazeux avec apport de chaleur ou réaction chimique à un écoulement isentropique sans réaction chimique. 2291.
- Serson, H. V. s. Ostrow, S. M.* 524.
- Sessler, A. M.* Mesonic corrections to the quadrupole moment of the deuteron. 568.
- and *Foley, H. M.* Spin-spin interaction of electrons and the ionization energy of helium. 619.
- — Relativistic correction to the ground-state energy of helium. 619.
- — Statistical atom with angular momentum. 619.
- — Hyperfine structure of He^{3+} and He^3 . 1808.
- Seth, B. R.* Stability of rectilinear plates. 1106.
- Setterwall, M.* Mechanical binary-decimal converter. 714.
- Setti, R. Levi s. Bonetti, A.* 1339, 2352.
- *s. Davies, J. H.* 763.
- Setty, C. S. G. K. s. Ratcliffe, J. A.* 1285.
- , *P. S. V. s. Khastgir, S. R.* 297.
- Seubold, Frank H. jr.* Carbon-carbon bond dissociation energies in the cycloalkanes. 1186.
- Seur, C. J. s. Olthuis, J. M.* 2184.
- Severiens, J. C. and Hanna, S. S.* Lifetimes of first excited states of Al^{28} and B^{10} . 1366.
- Severin, Hans s. Meyer, Erwin.* 1868.
- Sevkor, A. s. Bunde, E.* 1079.
- *s. Thoraeus, R.* 1693.
- Seal, Theodor und Überall, Herbert.* Energieabhängigkeit des Wirkungsquerschnittes bei elastischer Streuung von Neutronen an Protonen. 2038.
- Seybold, Gerhard s. Kalle, Ekkehard.* 2222.
- Scymour, D. W. s. Stergis, C. G.* 711.
- Shader, Fern L. s. Sponster, George C.* 1672.

- Shafer, H. Jerome.* Physical optic analysis of the schlieren method. 157.
- Shaffer, J. D.* Stable noise-generator. 1666.
- Shah, S. M.* Energy levels of mu-mesic atoms. 399.
- Shahat, M.* Crystal and molecular structure of maleic acid. 2067.
- Shain, C. A.* Location on Jupiter of a source of radio noise. 2232.
- Changes in the absorption of cosmic noise observed during two ionospheric disturbances. 2563.
- and *Kerr, F. J.* Factors affecting the interpretation of observations of transient echoes from the ionosphere. 709.
- *s. Higgins, C. S.* 880.
- Shalit, A. de s. Lipkin, H. J.* 400.
- Shamos, Morris s. Reier, Melvin.* 1582.
- , *M. H. s. Fajfarman, A.* 93, 424, 1523, 2348.
- Shank, R. R. s. Conrad, A. G.* 1937.
- Shankland, R. S., McCuskey, S. W. and Leone, F. C.* Analysis of the interferometer observations of Dayton C. Miller. 359.
- — — and *Kuerti, G.* Analysis of the interferometer observations of Dayton C. Miller. 359.
- Shapiro, Anatole M. s. Chen, Francis F.* 1589.
- , *I. I. and Glauber, R. J.* Nucleon scattering by nuclei at high energies. 244.
- , *J. and Preston, M. A.* Calculations on charge independence with repulsive core potentials. 601.
- *s. Preston, M. A.* 81.
- , *M. M. s. Seeman, N.* 1134, 2350.
- *s. Stiller, B.* 1337, 1521.
- *s. N. M. s. Potter, J. L.* 19.
- Shapley, Harlow.* Rumford bicentennial. 2255.
- Sharbaugh, A. H. s. Bragg, J. K.* 147.
- *s. Crowe, R. W.* 1661.
- Sharma, R. S. s. Dayal, B.* 797.
- Sharp, D. Gordon.* Nature of avian erythromyeloblastic leukemia virus. 2222.
- , *R. A. and Diamond, R. M.* Titanium nuclide. 59.
- Shatas, R. A., Marshall, J. F. and Pomerantz, M. A.* Emission of energetic secondary electrons produced by 1.3-Mev electron bombardment. 88.
- Sharp, Robert T. and Jackson, J. David.* Orthogonality of the Furry-Sommerfeld-Maue wave function and their use in perturbation theory. 1495.
- Shatas, R. A. s. Pomerantz, M. A.* 1862, 2133.
- Shaull, J. M. and Shoaf, J. H.* Precision quartz resonator frequency standards. 191.
- Shaw, C. H. s. Gordon, W. L.* 801.
- , *D. F.* Scattering of 14.3 MeV neutrons by ^4He nuclei. 1593.
- , *D. M.* Aspects of the determination of barium in silicate rocks. 505.
- , *Harlan, Cohen, David, Moyer, Burton J. and Waddell, Charles.* Analysis of high-energy photons from the cyclotron target. 559.
- *s. Cohen, David.* 62.
- *s. Waddell, Charles.* 62.
- , *John H. s. Sloan, Raymond.* 1916.
- , *P. F. D. s. Baker, J. M.* 2358.
- *s. Booth, D. L.* 1537.
- , *R.* Virtual masses of interacting fields. 721.
- , *T. M. and Elsken, R. H.* Proton magnetic resonance line width of sorbed water. 121.
- *s. Windle, J. J.* 1010.
- Shdanow, G. Ss. s. Alexejewskij, N. E.* 285.
- *s. Shurawlew, N. N.* 284.
- Shearer, J. N. s. Rank, D. H.* 1066, 1678.
- Sheckler, A. C. and Jillson, D. C.* Minority carrier lifetime as a function of crystal growth variables. 1221.
- *s. Jillson, D. C.* 1220.
- Sheer, C. and Moore, J.* Measurement of scattering cross sections for low-energy neutron resonances. 959.
- , *Zinn, A. and Hartmann, N.* Variable mercury delay line equipment for the measurement of short half-lives. 1119.
- Shchel, Jacob.* Two network theorems concerning change of voltage reference terminal. 304.
- Sheldon, J. W.* Use of the statistical field approximation in molecular physics. 1499.
- Sheline, R. K. s. Becker, R. S.* 876.
- , *Raymond K. and Wilkinson, Joseph.* Radioactivity Mn^{53} . 1547.
- *s. Cable, Joe W.* 1620.
- *s. Wilkinson, Joseph R.* 1157.
- Shenker, Henry s. Corruccini, R. J.* 2499.
- Shenstone, A. G.* Third spectrum of nickel (Ni III). 1396.

- Shephard, W. D. and Walker, W. D.* Production of heavy unstable particles in π -P collisions at 1.0 Bev. 1994.
- *s. Eisberg, L. M.* 979.
- *s. Walker, W. D.* 1994.
- , *G. G. and Hunton, D. M.* Measurement of rotational temperature from unresolved auroral nitrogen bands. 886.
- , *L. R. s. Holmes, J. E. R.* 225, 1329.
- , *Martin.* Apparatus for the determination of minor components of a gas mixture. 194.
- Shepherdson, J. C. s. Fröhlich, A.* 713.
- Sheppard, D. E. s. Rolfe, J. A.* 1188.
- , *N. s. Bethell, D. E.* 997.
- Shercliff, J. A.* Experiments on the dependence of sensitivity on velocity profile in electromagnetic flowmeters. 547.
- Engineering applications of magneto-hydrodynamics. 820.
- Entry of conducting and non-conducting fluids in pipes. 2291.
- Sheridan, J.* Microwave spectroscopy of gases. 624.
- Sherif, I. I.* Molecular heats of gases from the aspects of heat transfer. 1315.
- Sheriff, R. M. s. Kotadia, K. M.* 1286.
- , *s. Rastogi, R. G.* 2509.
- Sherman, Alex.* Thermocouple circuit restorer. 2277.
- , *Dora F.* Interactions of 380-Mev alpha particles in Ilford G.5 emulsion. 1147.
- , *H.* Properties of halogen-quenched Geiger counters. 1975.
- , *Jakob.* Theoretical derivation of fluorescent X-ray intensities from mixtures. 1472.
- , *N., Culler, G. and Fernbach, S.* Optical model analysis of scattering of 14-Mev neutrons. I. 979.
- *s. Fernbach, S.* 979.
- , *Noah.* Atmospheric temperature effect for μ mesons observed at a depth of 846 m.w.e. 427.
- , *P.* Influence of internal phase viscosity on the viscosity of concentrated water-in-oil emulsions. Studies in water-in-oil emulsions. V. 201.
- , *R. H. and Giauque, W. F.* Arsine. Vapor pressure, heat capacity, heats of transition, fusion and vaporization. The entropy from calorimetric and from molecular data. 2309.
- Sherr, R. and Hornyak, W. F.* Inelastic scattering at 19 Mev protons by O^{16} . A. Proton groups. 1365.
- , *Kavanagh, R. W. and Mills, W. R.* Energy levels of Al^{26} . 1154.
- , *Li, C. W. and Christy, R. F.* Coulomb excitation of F^{19} by alpha particles. 67.
- *s. Hornyak, W. F.* 1356, 2028.
- *s. Kavanagh, R. W.* 582.
- Sherry, N. P. R. s. Bates, L. F.* 279.
- *s. Blackman, L. C. F.* 1898.
- Shersby-Harvie, R. B. R.* Linear electron accelerators. 934.
- Sherwood, J. E., Stephenson, T. E. and Bernstein, Seymour.* Stern-Gerlach experiment on polarized neutrons. 1378.
- , *R. J.* Atmospheric contamination in industry and the health of the worker. 2551.
- Shewmon, P. s. Simnad, M.* 758.
- Shibata, H. s. Higashi, S.* 1177.
- Shield, R. T.* Plastic flow of metals under conditions of axial symmetry. 733.
- Shigemitsu, Yutaka.* Statistical theory of turbulence. I. Hypothesis of vortex chaos motion. 737.
- Shiio, Hazime, Ogawa, Toshio and Yoshikashi, Hiroshi.* Measurement of the amount of bound water by ultrasonic interferometer. 2302.
- Shilts, J. L. s. Baldwin, G. J.* 688.
- Shimada, Hachiro.* Glasströmungen in elektrisch beheizten Modellwannen. 2547.
- , *Junji s. Kumagai, Hiroo.* 2460.
- Shimanouchi, Takehiko s. Mizushima, San-Ichiro.* 784, 2410.
- Shimauchi, Akira s. Kojima, Shoji.* 2488.
- Shimazaki, T. s. Yonezawa, T.* 2575.
- , *Tatsuo.* Effect of the solar tides and the temperature change on the daily variation in electron density and height of the F_2 -layer. 2246.
- Shimazu, Mitsuyoshi.* Emission intensities of the O_2 atmospheric bands ($b^1 \Sigma_g^+ \rightarrow X^3 \Sigma_g^-$) 1818.
- Shimoda, Koichi.* Atomic clocks and frequency standard on an ammonia line. I. 191.
- Length of coherent microwaves generated by an electronic oscillator. 2511.
- and *Nishikawa, Tetsuji.* Microwave spectrum of methylamine. I. II. 2410.

- Shimoda, Koichi, Nishikawa Tetsuji and Itoh, Takashi.* Microwave spectrum of methylamine. 101.
- *s. Nishikawa, Tetsuji.* 2411.
- Shimodaira, Hajime s. Hara, Osamu.* 1332, 2269.
- Shimomura, Kenji, Kushida, Toshimoto, Inoue, Noriyoshi and Imacda, Yoshiro.* Pure quadrupole spectra of solid bromine and iodine compounds. 1422.
- Shimose, Ikuro.* Statistical theory of phase transition. I. General theory for lattice gas. II. Numerical calculation for lattice gas. 928.
- Shindo, Takuzo.* Space charge effect in the oxide cathode layer. II. 2500.
- Shinosaki, G. s. Krzywoblocki, M. Z. v.* 734.
- Shiraiwa, Toshio s. Sawada, Masao.* 780, 1205, 1804.
- Shirane, G. s. Jona, F.* 1238.
- , *Gen and Pepinsky, Ray.* Anomalous optical properties of ferroelectric PbTiO_3 . 1238.
- and *Takeda Akitsu.* Transition energy and volume change at three transitions in barium titanate. 2423.
- Phase transitions in solid solutions of PbZrO_3 and PbTiO_3 . (I) Small concentrations of PbTiO_3 . 2423.
- , *Suzuki, Kazuo and Takeda, Akitsu.* Phase transitions in solid solutions of PbZrO_3 and PbTiO_3 . (II). X-ray study. 2423.
- Shire, E. S. and Edge, R. D.* Production of neutrons and protons by the bombardment of boron by low energy alpha-particles. 767.
- , *Wormald, J. R., Lindsay-Jones, G., Lundén, A. and Stanley, A. G.* Nuclear reactions produced by the bombardment of boron by low energy alpha-particles. 2367.
- Shirley, H. T., Oldfield, A. and Kitchen, H.* Comparison of three methods of plate calibration and evaluation for routine spectrographic analysis of low-alloy steels. 2212.
- Shizume, Toshio s. Kihara, Taro.* 2315.
- Shnay, R. C.* Methods of statistical inference for the physical scientist. 357.
- Shoaf, J. H. s. Shaul, J. M.* 191.
- Shoemaker, F. C. s. Dayton, I. E.* 118.
- Shoenberg, D.* De Haas-van Alphen effect in aluminium and antimony. 2109.
- *s. Allen, W. D.* 2113.
- Shoenberg, D. s. Dijk, H. van.* 215.
- Shono, Hisao s. Kakiuchi, Yoshinobu.* 2462.
- Shoolery, J. N. s. Jarrett, H. S.* 122.
- , *James N. s. Bloom, Arnold L.* 1847.
- Shooter, K. V. and Tabor, D.* Frictional properties of plastics. 1312.
- *s. Rabinowicz, E.* 1312.
- Short, A. M. s. Macpherson, I.* 393.
- , *P. J. s. Norton, K. A.* 2261.
- Shorter, D. E. L. s. Axon, P. E.* 378.
- Shortley, George.* Use of Tschebyscheff-polynomial operators in the numerical solution of boundary-value problems. 1492.
- Shrader, E. F. s. Warner, R. M.* 40.
- Shrikantia, G. S. s. George, E. P.* 2400.
- Shukla, R. P. and Bhatnagar, R. P.* Viscosity of mixtures. I. Liquid-liquid binary mixture. 2287.
- Shuler, Kurt E. and Weber, Joseph.* Microwave investigation of the ionization of hydrogen-oxygen and acetylene-oxygen flames. 30.
- Shull, C. G. and Wilkinson, M. K.* Neutron diffraction studies of the magnetic structure of alloys of transition elements. 694.
- *s. Wilkinson, M. K.* 469.
- , *E. R., Oakwood, T. S. and Rank, D. H.* Infrared and Raman spectra of tetramethylmethane- d_{12} . 2059.
- , *Wood, J. L., Aston, J. G. and Rank, D. H.* Infrared and Raman spectra of 1,1-dimethylhydrazine and trimethylhydrazine. 2059.
- , *F. B. and Bretscher, M. M.* Angular distributions in (d,p) reactions with Ti^{17} and Ti^{18} . 573.
- , *MacFarland, C. E. and Bretscher, M. M.* Concentration of a cyclotron beam by strong focusing lenses. 389.
- , *Franklin B. s. McFarland, Charles E.* 1797.
- , *Harrison s. Goodman, Lionel.* 1616.
- Shulman, C. I.* Measurement of shot noise in CdS crystals. 652.
- , *R. G.* Valence bond calculations of acceptor energies in silicon and germanium. 1430.
- , *Brown, W. L. and Fletcher, R. C.* Hole trapping due to lattice defects in germanium. 1029.
- , *Mays, J. M. and McCall, D. W.* Nuclear magnetic resonance in semiconductor: Exchange broadening and line shapes. 1035.

- Shulman, C. I., Wyluda, B. J. and Hrostowski, H. J.* Quadrupole broadening of NRM lines by reversible axial stress. 1644.
- *s. Hannay, N. B.* 1029.
- *s. Mays, J. M.* 1034.
- *s. Wyluda, B. J.* 1433.
- Shultz, C. G. s. Kahn, Milton.* 579.
- Shurawlew, N. N. und Shdanow, G. Ss.* Struktur von Supraleitern. VIII. Röntgenographische und metallographische Untersuchung des Systems Wismut-Rhodium. 284.
- *s. Alexejewskij, N. E.* 285.
- Shurcliff, W. A.* True body dosimeter principle. 2558.
- *s. Makas, A. S.* 1680.
- Shure, K., Roys, P. A. and Taylor, J. J.* Penetration of 6-Mev gamma rays in lead and iron. 91.
- *s. Roys, P. A.* 91.
- Shurman, M. B. s. Benenson, R. E.* 38.
- Shutt, R. P. s. Block, M. M.* 938, 1753.
- *s. Eisberg, L. M.* 979.
- *s. Fowler, W. B.* 45, 1131.
- *s. Morris, T. W.* 1375.
- Sibbitt, W. L. s. Willman, B. T.* 20.
- *s. Woolf, J. R.* 2311.
- Sicard, A. s. Lecamp, M.* 1117.
- Sicinski, H. S. and Schulte, H. F.* Mach number and yaw angle determination for conical flow regimes using two surface-flow angle indicators. 914.
- Sicre, J. E. s. Brodersen, P. H.* 437.
- Siday, R. E.* High resolution and high precision beta-spectrometry. 1981.
- Siddall, G. s. Holland, L.* 1842.
- Sidhu, S. S.* Deuterium effect on hydrogen bond distance in hafnium dihydride. 1192.
- and *Zauberis, D. D.* Mutual solubilities of iron and osmium. 335.
- Sidles, P. H.* Thermal diffusivity of uranium from room temperature to 1000° C. 1409.
- Sidman, Jerome W.* Polarized absorption and fluorescence spectra of crystalline anthracene at 4° K: spectral evidence for trapped excitons. 2207.
- Siebertz, K. s. Groschwitz, E.* 2115.
- Siedentopf, H.* Optische Deutung des Gegenscheins. 1288.
- Siegbahn, K. s. Lindström, G.* 2386.
- , *Manne.* Nuclear spectroscopy. 1159.
- Siegel, Armand and Wiener, Norbert.* Theory of measurement in differential-space quantum theory. 1924.
- *s. Wiener, Norbert.* 5.
- , *Benjamin M. and Reisman, Elias.* Strongfocusing electron lens. 1069.
- , *Simon, Ralph E. and Sproull, Robert L.* Replication of crystals sensitive to the atmosphere: study of dispersions of colloidal potassium in potassium chloride. 1839.
- , *K. M. and Maffett, A. L.* Slow motions. 1945.
- , *Halpin, A. H. and Maffett, A. L.* Ideal flow and creeping motion. 375.
- , *L. A. and Williams, E. F.* s-triazine. I. Unit cell. 2068.
- , *R. T., Hartzler, A. J. and Love, W. A.* Scattering of polarized neutrons from protons at 350 Mev. 2391.
- and *Opitz, W.* Small-angle n-p scattering at 400 Mev. 604.
- , *Robert T.* Polarization of 350-Mev neutrons elastically scattered from nuclei. 1597.
- Siegert, A. J. F. s. Lewis, M. B.* 381.
- , *W.* Berechnung der Nutenstreuung und des Stabwiderstandes bei beliebig geformten Läufernuten. 2502.
- Siegfried, J. G. s. Nelson, J. R.* 1826.
- Siegler, E. H. s. Woodhull, Elliot H.* 1679.
- Sienko, M. J. s. Kernahan, Jean L.* 1424.
- Sieskind, M. s. Nikitine, S.* 1223, 2072.
- Sigel, Hermann s. Herchenbach, Wolfgang.* 2502.
- Sigmund, R. und Witte, E.* Einfluß von Objektgröße und Reichweite der Sekundärelektronen auf die biologisch wirksame Dosis bei Anwendung ionisierender Strahlen. 1694.
- Signer, R. s. Glanzmann, Rosmarie.* 454.
- Sigurgeirsson, Thorbjörn.* Focussing in a synchrotron with periodic field-perturbation treatment. 1986.
- Sikorski, J. s. Charles, A.* 2222.
- Siksna, Reinhard.* Photographs of the light phenomena of positive corona. 1658.
- *s. Norinder, Harald.* 1702.
- Silberstein, Ludwik.* Elementary probability of efficient absorption of a quantum proportional to the volume of a grain. 2204.
- Sillars, R. W.* Effect of field emission on the behaviour of semiconductor contacts. 674.

- Silsbee, H. B.* s. *Felix, B. R.* 1854.
 — *s. Hobson, J. P.* 1348, 1803.
 — *s. Hubbs, J. C.* 1348.
 — *s. Passell, L.* 1741.
Silva, E. and Goldemberg, J. Photo-disintegration of samarium. 1144.
 —, *Socio Giovanni.* Uso attuale della gravimetria in sussidio della livellazione. II. Condizioni che rendono trascurabile la riduzione di secondo ordine a quota dinamica. 1282.
Silveira, Adel da. Theory of spin-two particles. 1298.
 —, *Marieta da s. Jacobsohn, Kurt.* 1276.
Silver, E. G. s. Wanick, R. W. 1353, 1539.
 —, *R. S. and Mackay, R. W.* Mass transfer theories of fuel bed combustion. 30.
Silverman, A. s. Wolfe, B. 1522.
 —, *I. K.* Approximate stress functions for triangular wedges. 13.
 —, *L.* Preparation of dross-free sodium and other low melting metals and alloys by the under-pour method. 507.
 —, *R. A. s. Golay, M. J. E.* 1872.
 —, *S. s. Benedict, W. S.* 1814.
 s. Herman, R. 1814.
 — *s. Lassetre, E. N.* 98.
Silverstein, E. s. Jones, K. W. 958.
 —, *E. A. s. Chiba, Ren.* 1353.
 s. Herring, D. F. 2388.
Silvdi, A. A. and Maxwell, J. G. Beta spectrum of bismuth-210 using a diffusion cloud chamber. 78.
 —, *Schoepfle, G. K., Warren, K. L., Brooks, F. L. and Horowitz, M.* Instrument for measurement of information stored on photographic film. 1745.
Simanton, J. R., Rightmire, R. A., Long, A. L. and Kohman, T. P. Long-lived radioactive aluminium-26. 591.
 —, *James R, Rightmire, Robert A., Long, Alton L. and Kohman, Truman P.* Long-lived radioactive aluminium 26. 59.
Simchen, A. E. s. Braun, E. A. 446.
Simha, Robert. Statistical theory of crystallite length. 2437.
 —, *Wall, L. A.* Depolymerization kinetics. 450.
Siminovich, Louis s. Jacob, François. 1479.
Simmons, B. E., Famularo, K. F. and Freier, G. D. Coulomb excitation of samarium 1790.
 —, *Patter, D. M. van, Famularo, K. F. and Stuart, R. V.* Coulomb excitation of neodymium. 582.
 — *s. Patter, D. M. van.* 572.
Simnad, M. and Shewmon, P. Machining radioactive materials. 758.
 —, *M. T. and Derge, G.* Nature of conduction in liquid iron oxide and iron silicates. 2154.
 — and *Evans, U. R.* Influence of stress upon the electrode potential and polarization of iron and steel in acid solution. 2548.
 — *s. Pound, G. M.* 1007.
Simon, A. und Kriegsmann, H. Charakter der SO-Bindung. 2406.
 — *s. Biedenharn, L. C.* 51.
 —, *Albert.* Ambipolar diffusion in a magnetic field. 1043.
 —, *Arthur und Waldmann, Klaus.* Struktur des Sulfid-Ions. 2054.
 —, *Sir Francis s. Berman, R.* 445.
 —, *Helmut s. Weygand, Friedrich.* 2551.
 —, *Ralph E. s. Siegel, Benjamin M.* 1839.
Simoni, Franco de. Soluzioni generali della statica a simmetria sferica nell'ultima teorica unitaria di Einstein. 1042.
 — Equazioni di campo della teoria relativistica unitaria. 1714.
Simonot, Mlle Y. s. Dognon, A. 209, 697.
Simons, H. A. B. s. Palmer, R. B. J. 554.
 —, *J. s. Russell, K. E.* 2325.
 —, *K. A., Kirk, Don and Arbeiter, H. J.* Line amplifiers for community television. 1454.
 —, *Lennart.* Calculation of energy levels of the valence electron in sodium. 95.
 — Decay of ¹⁹⁸Au. 2024.
 —, *L. J. G. s. Jong, D. de.* 2012.
Simonsen, S. H. s. Peterson, S. W. 105.
Simonson, J. R. s. Gaydon, A. G. 1321.
 — *s. Moore, N. P. W.* 217.
Simonton, M. E. and Yeiser, John. Press safety control uses radioactive wristband. 1983.
Simpson, A. W. s. Bates, L. F. 816.
 —, *F. B., Fluharty, R. G. and Simpson, O. D.* Resonance parameters in Ta. 1553.
 — *s. Simpson, O. D.* 1383.
 —, *J. A. s. Meyer, Peter.* 1388, 2045.
 —, *J. Arol s. Marton, L.* 1181, 1607, 1608, 1845.

- Simpson, J. H.* Thermal ionization of trapped electrons in ionic solids. 109.
- , *O. s. Northrop, D. C.* 652.
- , *O. D., Fluharty, R. G., Simpson, F. B. and Brugger, R. M.* Neutron resonance parameters and total cross sections in U^{235} . 1383.
- *s. Simpson, F. B.* 1553.
- Sims, A. L.* Adaptable mechanism for converting rotary motion into a succession of linear movements. 728.
- , *G. D. and Gabor, D.* Theory of the preoscillating magnetron. II. Perturbations of a double stream steady state. 1455.
- *s. Gabor, D.* 1059, 1249.
- , *R. P. A.* Empirical viscosity relations of heated vegetable oils. 1943.
- Simson, Cl. v.* Wärmeleitfähigkeit des Ammoniumchlorids im Bereiche seiner II-III-Umwandlung. 1960.
- Sinclair, D. s. Hughes, I. S.* 1162.
- , *G. M.* Highly sensitive dilatometer. 2279.
- , *Rolf M.* Gamma radiation from interaction of 4.4 Mev neutrons with Fe^{54} and Fe^{56} . 1361.
- Gamma radiation form the interaction of 4.4-Mev neutrons with germanium and tungsten. 1580.
- Gamma radiation from the interaction of 4.4-Mev neutrons with Fe^{54} and Fe^{56} . 1580.
- , *W. K. and Holloway, A. F.* Half-lives of some radioactive isotopes. 2371.
- Singer, Joseph s. Staritzky, Eugene.* 1004.
- , *J. J. jr. s. MacGillivray, D.* 2481.
- , *Sidney s. Zimmermann, E. J.* 417.
- , *S. F.* Storm decrease of the cosmic radiation at the pole. 991.
- Origin of the charge spectrum of primaries. 1388.
- Minimum orbital unmanned satellite of the Earth (MOUSE). I. Geophysical and astrophysical applications. 2296.
- *s. Griem, H.* 247.
- Singh, Indergit.* Effect of electromagnetic radiation on Lamb shift. 2403.
- , *J. J. s. Broude, C.* 2377.
- *s. Green, L. L.* 241, 2025.
- , *N. L.* Emission bands in Cu_2 . 625.
- , *Nand Lal s. True, Tom T.* 624.
- , *Sampooran.* Target damages by explosive charges with lined conical cavities. 20.
- Singh, Sampooran.* Jet formation by explosives with lined hemispherical cavities. 207.
- Jet formation by explosives with lined hemispherical cavities. 739.
- Singwi, K. S. and Udgaonkar, B. M.* Polaron self-energy and Bloch-Nordsieck method. 443.
- *s. Kothari, L. S.* 775.
- Sinha, K. P. and Dasgupta, A. K.* Evaporation of trace impurities from the matrix of a host lattice. 1823.
- Sinno, Kenzi.* Disturbances in F_2 layer associated with geomagnetic disturbances. 2247.
- Sippel, R. F. s. Bent, R. D.* 970, 1164, 1556, 1784.
- Sirkar, S. C. and Ghosh, D. K.* Absorption of 3.3-cm microwaves in chloroform and ethylene dichloride in the liquid state. 1237.
- Sirkis, Murray D. and Coleman, Paul D.* Frequency stabilized microwave oscillator using readily available components. 1248.
- *s. Coleman, Paul D.* 993.
- Širkov, D. V. s. Bogoljubov, N. N.* 2269.
- Sirlin, A. s. Behrends, R. E.* 1528.
- , *J. L.* Nuclear uptake of methionine- S^{35} in the newt embryo. 1077.
- Sites, J. R. s. Boyd, G. E.* 1779.
- Sitte, Kurt, Froehlich, Fritz E. and Nadelhaft, Irving.* Electron production in high-energy nuclear interactions. 990.
- *s. Askowith, Joseph G.* 990.
- *s. Froehlich, Fritz E.* 989.
- Sittel, Karl s. Schwan, H. P.* 462.
- Sittkus, A.* Untersuchung des Tagesganges der kosmischen Ultrastrahlung mit einer großen Ionisationskammer. 1802.
- , *Kühn, W. und Andrich, E.* Beobachtung der Ultrastrahlungseruption vom 23. Februar 1956 in Freiburg i. Brg. 2043.
- *s. Remy, E.* 427.
- Sivertsen, J. and Wert, C.* Young's modulus of gold-nickel alloys. 1473.
- Sizoo, G. J. s. Haan, E. F. de.* 1516, 1575.
- *s. Meijer, G.* 756.
- *s. Stoker, P. H.* 556.
- Sjöberg, Nils G. s. Lundén, Arnold.* 1141.
- Sjöberg, Th. s. Haeffner, E.* 1140.
- Sjöstrand, F. S. and Andersson, Ebba.* Electron microscopy of the inter-

- calated discs of cardiac muscle tissue. 1692.
- Sjöstrand, F. S. and Hanzon, V.* Electron microscopy of the Golgi apparatus of the exocrine pancreas cells. 1691.
- , *N. G. s. Dardel, G. von.* 86, 604.
- Skalicky, Max.* Gleichungen und Ersatzbild des Transistors. 1040.
- Skarstrom, C. W. s. Hollander, L.* 1679.
- Skau, Evald L., Magne, Frank C., Mod, Robert R. and Durr, Rene L.* General density equation for glyceridic oil-solvent mixtures. Calculation of density-composition-temperature data from oil and solvent densities. 1939.
- Skeen, C. H. and Osborne, W. Z.* Strange cosmic-ray event. 1778.
- Skelland, A. H. P. s. Garner, F. H.* 206.
- Skeritchy, A. R. B.* Proportional counter tube for X-ray diffraction analysis. 1746.
- , *Allan R. B.* Proposed detector for the visual observation of X-ray diffraction images by electronic scanning. 2416.
- Skinner, L. B. s. Schuerer, A. A.* 1405.
- , *N. J. and Wright, R. W.* Recombination and ion production from the total electron content. 1913.
- Skjeggstad, O. and Sorensen, S. O.* Mesonic decay in flight of a tritium hyperfragment. 1335.
- Skoglund, A. and Ore, A.* Radiation-induced dielectric changes in phosphorescent material. 1072.
- Skolnik, W.* Scattering of 195-Mev pions by deuterium. 1384.
- Skotnicky, Josef.* Dependence of the melting point on the pressure. 2317.
- Skramlik, E. von.* Regelung der Strömungsrichtung des Blutes. 873.
- Skulski, R. W. and Weimer, D.* Reflection of a compression wave from a symmetrical wedge. 376.
- Skyrme, D. M.* Multiple scattering of protons in thin foils. 2035.
- Skyrme, T. H. R.* Quantum field theory. 187.
- Model for nuclear matter. 2356.
- s. Elliott, J. P.* 946.
- Slaby, Vernon A.* Characteristic infrared absorption bands of the cyclopropyl ring. 1620.
- Sladek, R. J. s. Keyes, R. W.* 1653.
- Sladek, Ronald J.* Thermal conductivity of indium-thallium alloys at low temperatures. 1429.
- Thermal conductivity of indium-thallium alloys at liquid helium temperatures. 1853.
- Slätis, H. s. Rasmussen, J. O.* 591, 1549.
- , *Hilding and Zappa, Luisa.* Disintegration of Zr^{95} and Nb^{95} . 2372.
- Slansky, Serge.* Influence de la cohérence de l'éclairage sur le contraste de l'image d'un point noir en présence d'un petit défaut de mise au point. 1457.
- Slater, J. C.* Generalized self-consistent field method. 3.
- One-electron energies of atoms, molecules and solids. 1803.
- *s. Koster, G. F.* 444.
- , *William, s. Oear, Jay.* 423.
- Slatter, W. C. G.* Decimal counter using binary units. 221.
- Slaughter, G. G., Block, M. M. and Harth, E. M.* Chronotron for time of flight studies of cosmic rays. 1515.
- *s. Fairbank, W. M.* 1976.
- Slavin, W. s. Bergstrahl, T. A.* 389.
- Slawsky, Z. I. s. Dawson, J. M.* 27.
- *s. Michels, A.* 214.
- *s. Schwantz, R. N.* 1507.
- *s. Smiley, E. F.* 2294.
- *s. Wette, F. W. de.* 1623.
- Sleator, D. B. s. Bergdott, V. E.* 20.
- Slee, O. B. s. McGee, R. X.* 2234.
- Slepian, Joseph.* Isotopic separation by magneto-ionic expansion. 948.
- Angular momentum and energy of the ions in the magneto-ionic isotope separator. 1123.
- Slevogt, H.* Vergleich zwischen Rayleighs $\lambda/4$ -Kriterium und der Definitionshelligkeit. 2519.
- *s. Heynacher, E.* 1684.
- Slia, Mlle Elvire s. Nenitzesco, Costin D.* 551.
- Slibar, A. s. Desoyer, K.* 910.
- Slichter, C. P. s. Saika, A.* 277.
- , *Charles P.* Concept of temperature and the Overhauser nuclear polarization effect. 1534.
- Spin resonance of impurity atoms in silicon. 1650.
- s. Schumacher, Robert T.* 1643.
- , *W. P. and Mays, J. M.* Proton magnetic resonance in polyamides. 1413.

- Sliepcevich, C. M. s. Chin, J. H.* 2085, 2086.
- *s. Scott, P. H.* 2086.
- Slifkin, Lawrence s. Portnoy, William M.* 2126.
- Sloan, C. K.* Angular dependence light scattering studies of the aging of precipitates. 2085.
- , *D. H. s. Goodman, D. H.* 486.
- , *Louise L. and Habel, Adelaide.* Color signal systems for the red-green color blind. An experimental test of the threecolor signal system proposed by Judd. 1477.
- — Recognition of red and green point sources by color-deficient observers. 1477.
- , *Raymond, Shaw, John H. and Williams Dudley.* Infrared emission spectrum of the atmosphere. 1916.
- Sloanaker, M. R. s. Haddock, F. T.* 516.
- Slonczewski, J. C. and Weiss, P. R.* Combined tight binding and perturbation theory of graphite π states. 1649.
- Slooten, J. van.* Mechanismus der Synchronisierung von LC-Oszillatoren. 487.
- Oscillations and noise. 1450.
- Slowinski, Emil and Elliott, Norman.* Lattice constants and magnetic susceptibilities of solid solutions of uranium and thorium dioxide. 2066.
- Sluis, K. L. Vander and Griffin, P. M.* Nuclear spin of polonium-209 (Po209). 2050.
- and *McNally, J. R. jr.* Nuclear spin of uranium-235. 1399.
- Smale, J. A. s. Cole, A. W.* 1879.
- Smales, A. A.* Comparison of some methods for the determination of trace impurities in semiconductors. 649.
- Small, G. F. s. Medhurst, R. G.* 1872.
- Smaller, B., Hennig, G. R. and Yasaitis, E. L.* Paramagnetic resonance absorption in graphite compounds. 123.
- Smallman, R. E. s. Williamson, G. K.* 256, 800.
- Smart, J. Samuel.* Application of the Bethe-Weiss method to ferrimagnetism. 646.
- Smedvik, Lise s. Andersen, Flemming.* 431.
- Smekal, A. und Steinmaurer, R.* Österreichisch-deutsche Physikertagung in Innsbruck 1953. Gemeinsame Tagung der Österreichischen Physikalischen Gesellschaft und des Verbandes der Deutschen Physikalischen Gesellschaft in Innsbruck vom 20. bis 25. September 1953. 894.
- Smekal, A. G.* Kristallwachstum. 107.
- Spurtiefe und Eindringtiefe im Mikrofließversuch. 1306.
- Smelik, J.* Anwendung der polarographischen Adsorptionsanalyse zur Untersuchung galvanischer Glanzbäder. 2485.
- Smelko, J. F. s. Dacey, J. R.* 2447.
- Smerdo, S. F.* Non-linear plasma oscillations and bursts of solar radio emission. 878.
- Smets, G. s. Radzitzki, P. de.* 1416.
- Smidt, Dieter.* Abklingen der Lumineszenz silberaktivierter Zinksulfid-Phosphore nach Anregung durch einzelne α -Teilchen und Elektronen. 1260.
- Smiley, E. F., Winkler, E. H. and Slawsky, Z. I.* Measurement of the vibrational relaxation effect in CO_2 by means of shock tube interferograms. 2294.
- Smiley, William G.* Determination of oxygen in metals without high vacuum by capillary trap method. 1268.
- Smit, J.* Influence of elastic shear strains on the conductivity and thermoelectric force of cubic metals. 2112.
- Spontaneous Hall effect in ferromagnetics. I. 2466.
- and *Wijn, H. P. J.* Physical properties of ferrites. 1270.
- , *W. M.* Conservation equation of chromatography. 458.
- Smith, A. E. s. Schaefer, A. A.* 1405.
- , *A. G. s. Saunders, M. J.* 712.
- , *A. L. and Power, A. D.* Luminescence of the system $\beta \text{Zn}_3(\text{PO}_4)_2$. — $\text{Cd}_3(\text{PO}_4)_2$. 167.
- , *A. M.* Theory of beta-radioactivity. 1161.
- *s. Holmes, J. E. R.* 1329.
- , *Alan W.* Effect of neutron bombardment on a zinc sulfide phosphor. 1470.
- Thermal conductivity of graphite. 1740.
- Low-temperature thermal conductivity of a Canadian natural graphite. 1740.
- Smith, Alex G.* Daylight visibility of stars from a long shaft. 1906.
- , *Bernard and Boorse, Henry A.* Helium II film transport. I. Role of substrate. II. Role of surface-finish.

- III. Role of film height. IV. Role of temperature. 1195, 1196.
- Smith, Bob H. s. *Heusinkveld, Myron*. 1752.
- , Charles G. Anchored mercury arc cathode spot. 668.
- and Wallace, W. E. Acoustic wave velocities, elastic constants, and Debye characteristic temperature for polycrystalline MgCd. 1735.
- , C. W. s. Marx, Paul. 2437.
- , D. C. s. Ferguson, E. E. 432.
- , D. D. s. Werner, G. F. 1535.
- , D. F. and Nielsen, A. H. Pure rotational spectrum of hydrogen fluoride. 623.
- , E. s. Bilby, B. A. 1627.
- , E. E. Unit of X-ray dose and its realisation. I. Standardisation of X-ray dosimeters. 2557.
- , s. Wyckoff, H. O. 342.
- , Felix T. Theory of the spherical diffusion flame: effect of atmosphere depletion. 2327.
- , F. M. s. Goldhaber, S. 1131.
- , s. Heckman, Harry H. 1135, 1758.
- , Frances M., Heckman, Harry H. and Barkas, Walter H. Masses of positive K-particles. I. Identification of K-particles and analysis of secondaries. 1757.
- , Frances M. s. Barkas, Walter, H. 1528, 1748.
- , s. Chupp, Warren W. 1756.
- , Fred A. s. Gove, Norwood. 964.
- , G. L. and Miller, L. G. MTR Crystal spectrometer data printing system. 36.
- , G. S. Non-electrical properties of the dropping mercury electrode. 2142.
- , Gilbert W. s. Moore, Fletcher L. 57.
- , H. and Sugden, T. M. Ionization produced by metallic salts in flames. III. Ionic equilibria in hydrogen air flames containing alkali metal salts. 753. IV. Stability of gaseous alkali hydroxides in flames. 754.
- , H. L. s. Broune, C. I. 65.
- , s. Ghiorso, A. 1322.
- , s. Prestwood, R. J. 966.
- , H. M. Precision measurement of time. 10.
- , Humphry M. Estimation of absolute frequency in 1950—51. 1844.
- , J. A. S. s. Cox, E. G. 106.
- , J. H. and Barton, M. Q. Photodisintegration of lithium and helium near 200 Mev. 1775.
- Smith, J. M. s. Bennett, C. O. 921.
- , James M. jr. Radiation safety for a reactor. 2348.
- , J. R. and Magleby, E. H. Energy dependence of n for U^{235} in the region 0.04—1.0 ev. 1753.
- , s. Dinneen, G. U. 726.
- , J. V. Two aids for the orientation of crystals in a precession camera. 2065.
- , J. W. and Waller, J. G. Polarographic behaviour of aromatic nitro compounds. II. Nitrosobenzene and N-phenylhydroxylamine. 2157.
- , K. F. Spin of sodium-24. 2008.
- , s. Bellami, E. H. 2008.
- , Lloyd S. Cowrant, E. D. 1752.
- , Leon E. 1955 Spring Meeting of the Ohio Section at Ohio Wesleyan University, Delaware, Ohio, April 22 and 23, 1955. 182.
- , Fall meeting of the Ohio section of the American physical society held at Wright-Patterson Air Force Base, Ohio, October 14 and 15, 1955. 1707.
- , L. M. s. Mason, P. 199.
- , Lloyd P. Engineering physics at Cornell. 1919.
- , L. W., McReynolds, A. W. and Snow, G. Elastic p-p angular distribution 440—1000 Mev. 417.
- — Elastic p-p angular distributions from 440 to 1000 Mev. 1376.
- , s. Coor, T. 1381.
- , Lyle W. Measurement of the scattering constant in nuclear emulsion. 1121.
- , M. S., Smith, R. R., Joki, E. G. and Evans, J. E. Total neutron cross section of Np-237 in the 0.02-to 3-ev region. 1553.
- , O. J. M. Stabilization templates for servomechanisms. 907.
- , P. L. s. Lipson, H. G. 2123.
- , R. A. Physics at the Radar Research Establishment, Malvern. 1918.
- , s. Hasted, J. B. 2405, 2414.
- , R. D. s. Holmes, J. E. R. 225, 1329.
- , Roberta E. s. Taylor, John Keenan. 2156.
- , R. G. s. Nichols, P. F. 1555.
- , R. K. s. Henkel, R. L. 1590.
- , s. Nobles, R. A. 1776.
- , R. R. s. Evans, J. E. 401.
- , s. Smith, M. S. 1553.
- , R. S. s. Daint, J. G. 2074.

- Smith, Robert T. jr., Harris, J. C. and Cooper, John N. Technique for the detection of nuclear resonances by observing residual radioactivity. 1749.
- , R. W. Properties of ohmic contacts to cadmium sulfide single crystals. 650.
- Edge electroluminescence from CdS crystals at low dc fields. 1072.
- Edge electroluminescence from ZnS single crystals. 1687.
- and Rose, A. Space-charge-limited currents in single crystals of cadmium sulfide. 651.
- , S. J. and Branscomb, L. M. Threshold for photodetachment from OH⁻. 617.
- , S. Ruven and Gordon, Alvin S. Precombustion reactions in hydrocarbon diffusion flames: paraffin candle flame 1116.
- , Stanley W., Morris, A. and Dimmick, Forrest L. Effects of exposure to various red lights upon subsequent dark adaptation measured by the method of constant stimuli. 1475.
- , Stephen J. and Branscomb, Lewis M. Atomic negative-ion-photodetachment cross-section and affinity measurements. 2404.
- , s. Branscomb, Lewis M. 994.
- , W., Glick, H., Hertzberg, A. and Squire, W. Schlieren studies of the flow behind strong shocks. 916.
- , Wray s. Huntoon, R. D. 857.
- , W. E. Time delays of spectrograph outputs by low-pass filters. 1670.
- , W. G. and Hollander, J. M. Neutron deficient chains of mass 187 through 191. 580.
- Radiochemical study of neutron-deficient chains in the noble metal region. 1357.
- s. Hollander, J. M. 1159.
- , W. L. Regenerative stochastic processes. 183.
- , Walter L. Extensions of a renewal theorem. 183.
- , W. R. Quick-change seal opener. 1934.
- , Willie W. Survival after radiation exposure, Influence of a disturbed environment. 2230.
- Smither, R. K. Measurement of the coefficient of secondary electron emission with a resonant cavity. 1447.
- Smither, R. K. and Hoover, C. W. jr. Secondary electron resonance discharge mechanism. I. 1327.
- s. Hoover, C. W. jr. 1327.
- Smithies, D. s. Baxendale, J. H. 2202.
- Smollett, M. and Pratt, R. G. Effect of adsorbed air on photoconductive layers of lead sulphide. 291.
- Smoluchowski, R., Pearlstein, E. and Ingham, H. Radiation effects in solids produced by nuclear disintegrations. 1175.
- s. Couling, S. R. L. 2426.
- s. Leivo, W. 1224, 2424.
- s. Li, Yin-Yuan. 790.
- s. Pearlstein, E. 1175.
- s. Robinson, W. H. 777.
- Smyth, M. J. s. Baker, E. A. 1906.
- Smythe, W. R. Charged disk in cylindrical box. 119.
- and Worlock, R. M. π^0 photoproduction from protons and deuterium nucleons. II. 1342.
- Smythe II, W. R. s. Keck, J. C. 575.
- s. Tollestrup, A. V. 575.
- Smythe, W. R. s. Worlock, R. M. 1342.
- Sneddon, I. N. s. Eason, G. 911.
- Snelgrove, P. s. Murray, J. J. 579.
- Snell, Arthur H. Neutron decay: problem and the experiments. 2004.
- and Pleasonton, Frances. Spectrometry of recoils from neutrino emission in argon-37. 564.
- Snelling, M. A. s. Noltingk, B. E. 1937.
- Sneider, J. s. Kistemaker, J. 231.
- Snow, Chester. Formulas for computing capacitance and inductance. 1210.
- , G. s. Coor, T. 1381.
- s. Smith, L. W. 417.
- , G. A. s. Fry, W. F. 562, 1526, 1754, 1755, 2000.
- s. Smith, L. W. 1376.
- Snowdon, W. Disturbance of stress in an infinite plate by a lemniscate-shaped hole. 1502.
- Snyder, A. and Castillo, Del. Momentum distribution of low-energy cosmic-ray particles. 1390.
- , Chang, W. Y. and Gupta, I. C. Double-plate cloud-chamber study of V⁰-particles. II. Mean decay times of Θ^0 and A^0 particles. 1995.
- s. Castillo, Del. 1390.
- s. Gupta, I. C. 1995.
- , Hartland S. s. Goldberg, Jean Snover. 1586.

- Snyder, H. S. s. Green, G. K.* 1751.
 — s. *Raka, E. C.* 1752.
 —, *James N.* Determination of alpha-alpha scattering phase shifts. 415.
 —, *S. s. Fagg, L. W.* 2026.
 —, *W. S. and Neufeld, Jacob.* Disorder of solids by neutron radiation. 985.
 — and *Neufeld, J.* Computation of the vacancies created by heavy corpuscular radiation. 2042.
Sobcov, Harold s. Woodhull, Elliot H. 1679.
Soberman, R. K. and Korff, S. A. High-altitude cosmic-ray neutron intensity variations. 1606.
 —, *Beiser, A. and Korff, S. A.* Variation of the position of the cosmic-ray neutron intensity maximum with geomagnetic latitude. 249.
 — s. *Neuburg, H. A. C.* 427.
Sobra, K. s. Zilka, B. H. 2164.
Sodha, Mahendra Singh. Shrinkage effect of close components in spectroscopic instruments. 2523.
Söhngen, H. Luftkräfte an einem schwingenden Gitter. 737.
 *— Schwingungsverhalten eines Schaufelkranzes im Vakuum. 1107.
 *— Strömung vor einem Überschall-Lauf-rad. 2293.
Sörensen, S. O. s. Haugerud, Ö. 1334.
Sorensen, S. O. s. Scharff, M. 1136.
 — s. *Skjeggstad, O.* 1335.
Softky, Sheldon D. Photodisintegration of carbon-12 by 330-Mev bremsstrahlung. 576.
 — Millisecond gamma emitter from protons on tantalum. 962.
 — Millisecond gamma emitter from protons on Ta. 1148.
Sogo, P. B. and Jeffries, C. D. Nuclear magnetic moments of Cl^{36} , Rh^{103} and W^{183} . 1533.
 Spin, magnetic moment and electric quadrupole moment of La^{138} and the magnetic moment of Cl^{36} . 2106.
Solc, Ivan. Low-frequency vibrations of rectangular ADP plates. 2283.
Soled, J. s. Keck, P. H. 823.
 — s. *Lohovec, K.* 823.
Solis, M. Aguilar, M. y Plaza A. Influencia del estado de adaptación de un ojo sobre el umbral diferencial del otro. II. 340.
Solis, M. Aguilar, M. y Plaza A. Influencia del estado de adaptación de un ojo sobre el umbral diferencial del otro. II. 698.
 — s. *Aguilar, M.* 341.
 —, *Miguel s. Vigón, M.^a Teresa.* 2533.
Sollom, P. H. and Brown, J. Centimetre-wave parallel-plate spectrometer. 1874.
Solnitz, F. s. Heiberg, E. 602.
Solomon, I. Relaxation processes in a system of two spins. 2460.
Solomonoff, R. J. Effect of Heisenberg's principle on channel capacity. 1970.
Solon, Leonard R. and Blatz, Hanson. Effect of body backscatter in gamma-ray personnel dosimetry. 173.
 —, *McLaughlin, James E. and Blatz, Hanson.* Background data from scintillation detectors. 777.
Soma, Junkichi and Ogi, Masamichi. Non-linear approximation of the interatomic force in solid. 2420.
Someren, E. H. S. van s. Roberts, D. F. T. 2201.
Somers, Lowell M. s. Rudinger, George. 1949.
Somerville, I. J. Effective area of a piston gauge. 905.
Somerville, J. M. and Grainger, C. T. Current distribution in an expanding spark channel. 2164.
 —, *T.* Establishment of quality standards by subjective assessment. 740.
Sommerkorn, G. Elementarbereichstrukturen verschiedener pauschal unmagnetischer Zustände. 2104.
Sommermeyer, K. Ergebnisse und Probleme der Treffertheorie in der Strahlenbiologie. 696.
 — Absorptionskoeffizienten der β -Energie radioaktiver Isotope in luftäquivalenten Substanzen. 2039.
 — und *Dresel, H.* Spezifische primäre Ionisation durch Elektronen mittlerer Energie in Wasserstoff, Stickstoff, Sauerstoff und Argon. 93.
 Spezifische primäre Ionisation in Gasen durch Elektronen mittlerer Energie. II. 1392.
 — und *Heiner, G.* Strahlenschutzüberwachung durch photographische Registrierung von Fluoreszenz. 1693.
 — und *Waechter, K.-H.* Absorptionskoeffizienten der β -Energie radioaktiver Isotope. II. Grundlagen der β -Strahlen-Dosimetrie. 1078.

- Sommers, Henry S. jr., Dash, Gregory and Goldstein, Louis.* Transmission of slow neutrons by liquid helium. 420.
- Sona, A. M. s. Corte, M. della.* 985.
- Sondheimer, E. H.* Kelvin relations in thermo-electricity. 1446.
- Mean free path of electrons in metals. 2112.
- s. *Englman, R.* 2092.
- s. *Howarth, D. J.* 2117.
- Sones, R. H. s. Cragg, L. H.* 267.
- Sonett, C. P. and MacKenzie, K. R.* Relative stopping powers for 20-Mev protons. 976.
- — Relative stopping power of various metals for 20-Mev protons. 1591.
- Sonnefeld, A.* Einfache projektive Beziehungen auf der Achse und auf den Hauptstrahlen an der idealen spiegelnden Kugelfläche. 321.
- Chromatische Korrektur des Spiegelsystems nach Bernhard Schmidt. 348.
- Hans Harting zum Gedächtnis. *15.2. 1868, † 21. 9. 1951. 2254.
- Sonntag, G.* Zylinderschale periodisch veränderlicher Wanddicke unter gleichmäßiger Belastung. 2297.
- Soole, B. W.* Angular distribution of multiply-scattered γ -radiation. 247.
- Sopp, Theodore E. and Stanton, Leonard.* Physical measurements of radiation through a grid. 345.
- Sopwith, D. G. s. Allen, D. N. deG.* 1727.
- Sorem, A. L. and Nelson, C. N.* Spectral and luminance requirements for color-transparency illuminators. 498.
- — Spectral and luminance requirements for color transparency illuminators. 2201.
- Sorger, Günther s. Feldtkeller, Richard.* 276.
- Soroka, Walter W.* Response of dynamic systems. 909.
- Sorrels, J. D., Leighton, R. B. and Anderson, C. D.* Associated production of Ξ^- with two Θ^0 particles. 1997.
- , *Trilling, G. H. and Leighton, R. B.* A^0 -fragment decay in a cloud chamber. 1998.
- Souchay, A. E.* Decay of ^{70}As produced by ^{14}N bombardment of Cu. 76.
- Souchay, P. et Ser, S.* Polarographie des oximes. 830.
- et *Tatibouet, F.* Polarographie de l'acide rhodizonique et substances voisines. 2156.
- Souchay, Pierre et Teyssèdre, Mlle Monique.* Comportement de certains acides faibles solubles. 1963.
- Soudain, Georges.* Mesure interférométrique des petites déformations d'une membrane appliquée à la mesure des hautes pressions. 724.
- Soudan, Adel.* Eléments canoniques du mouvement elliptique. 516.
- Soutif, M. s. Grivet, P.* 1917.
- Sowerby, M. G. s. Armenteros, R.* 1999.
- s. *Barker, K. H.* 1999.
- Spaa, J. H. s. van Dorsten, A. C.* 2346.
- Spadea, M. C. s. Caloi, P.* 2580.
- Spähn, Heinz s. Schmid, Gerhard.* 2162.
- Späth, W.* Thermoelektrische Effekte in belasteten Metallen. 2171.
- Spalding, D. B.* Calculation of mass transfer rates in absorption, vaporization, condensation and combustion processes. 1118.
- Spandau, H. s. Reckmann, H.* 2097.
- , *Hans und Jander, Gerhart.* Simultandialyse von Ionen. Zu *Hacker, W.* und *Reckmann, H.* 2096.
- Spandöck, Friedrich.* Grenzen der Güte elektroakustischer Wandler. 1313.
- Sparrow, E. M.* Laminar free convection from a vertical surface for prescribed variations of (1) wall heat transfer rate, or (2) of wall temperature. 922.
- Spear, W. E.* Electron bombardment effects in thin dielectric layers. 1418.
- Spearman, F. R. J. s. Gait, J. J.* 536.
- Speck, D. R. and Jenkins, F. A.* Quadrupole moment of niobium. 1808.
- s. *Jenkins, F. A.* 1885, 2050.
- s. *Woodward, E. C.* 620.
- Specker, H.* Elastisch-plastischer Schwefel. 2285.
- , *Hermann.* Optische Verfahren zur Bestimmung von Spurenelementen durch Anreicherung. 865.
- Spedding, Frank H.* Large-scale separation of rare-earth salts and the preparation of the pure metals. 370.
- Speer, F. s. Gobrecht, H.* 135, 2172.
- Spiegel, M. R.* Summation of series involving roots of transcendental equations and related applications. 357.
- Spence, R. D., Moses, H. A. and Jain, P. L.* Proton magnetic resonance line in liquid crystals. 121.
- , *R. W. s. Ghiorso, A.* 1322
- Spencer, L. V.* Calculation of peaked angular distributions from legendre po-

- lynomial expansions and an application to the multiple scattering of charged particles. 413.
- Spencer, L. V.* Theory of electron penetration. 1171.
- Asymptotic spatial trend of electron penetration. 1384.
- , *M.* Shape of irregularities in the upper ionosphere. 179.
- *s. Phillips, G. J.* 179.
- , *T. W.* Reflection of an acoustical pressure pulse from a liquid-solid plane boundary. 1737.
- Spengler, H.* Niedrigschmelzende Metalle und Legierungen. 2214.
- Sperduto, A.* and *Buechner, W. W.* (p, p') and (p, α) reactions of potassium. 2013.
- , *Bockelman, C. K.* and *Browne, C. P.* (d, p) reactions from carbon, nitrogen and oxygen. 412.
- *s. Buechner, W. W.* 1568.
- Spicer, B. M.* Angular distribution of photoprotons from nitrogen. 952.
- (γ, p) reaction in argon-40. 1775.
- and *Penfold, A. S.* $C^{12}(\gamma, n)$ yield curve near threshold. 2016.
- *s. Penfold, A. S.* 2016.
- , *William E.* X-ray-induced luminescence from air. 1071.
- Spiegel, Murray R.* Applications of the Dirac delta function to the evaluation of certain integrals. 2260.
- , *V. jr., Waldman, B.* and *Miller, W. C.* Absolute cross sections for the Coulomb scattering of 1.00-, 1.75-, and 2.50-Mev electrons. 1172.
- *s. Waldman, B.* 1172.
- Spiegler, G.* Schärfe und Auflösungsvermögen im Röntgenbild — alte Vorstellungen neu betrachtet. 2228.
- Spiers, J. A.* Notation for quantized angular momenta. 1497.
- Spiesecke, H.* *s. Mecke, R.* 2058.
- Spieß, S.* Äquivalenz von Zweipolschaltungen. 2513.
- Spindel, W.* Calculation of equilibrium constants for several exchange reactions of nitrogen-15 between oxy compounds of nitrogen. 1115.
- Spindler, Robert J. s. Rodney, William S.* 1255.
- Spinks, A. W.* and *Zapf, T. L.* Precise comparison method of testing alternating-current watt-hour meters. 811.
- *s. Zapf, T. L.* 811.
- Spinks, J. W. T. s. Green, B. C.* 1077.
- Spinrad, B. I.* Threshold values of internal conversion coefficients for the K-shell. 1370.
- Spiro, J., Cottingham, J. G., Courant, E. D.* and *Kassner, R. R.* Electron analog. Initial setup. 1752.
- *s. Courant, E. D.* 1752.
- *s. Raka, E. C.* 1752.
- Spital, Sidney s. Baskir, Emanuel.* 418.
- Spitzenberg, F. s. Pickroth, G.* 271.
- Spitzer, Friedrich.* Synthetische piezoelektrische Kristalle in der Elektroakustik und Hochfrequenztechnik. 1870.
- , *W., Bennett, C. O.* and *Fan, H. Y.* Pressure dependence of absorption edge in germanium and silicon. 1031.
- , *Collins, R. J.* and *Fan, H. Y.* Infrared absorption in n-type germanium. 2125.
- Spohr, D. A.* and *Webber, R. T.* Electrical and thermal conductivity of magnesium and a magnesium alloy at low temperatures. 1851.
- Sponer, H.* Wavelength shifts in the near ultraviolet spectra of fluorinated benzenes. 440.
- Sponberg, F. s. Moos, W. S.* 2227.
- Sponsler, George C.* and *Shader, Fern L.* PPI light spot brightness probability distributions. 1672.
- Spotz, Ellen L. s. Byron, R.* 381.
- Spragg, W. T. s. Ritchie, A. B.* 2021.
- Sprague, G., Tombouljian, D. H.* and *Bedo, D. E.* Calculations of grating efficiency in the soft X-ray region. 1679.
- Spray, C. A. F. T.* Simple etching technique for revealing dislocations in silicon. 2470.
- Sproull, Robert L. s. Siegel, Benjamin M.* 1839.
- Spruch, Grace Marmor s. Kallmann, Hartmut.* 2539.
- , *L. s. Rotenberg, A.* 366.
- Spry, W. J.* Total cross section for charge exchange scattering of π -mesons by hydrogen at 42,30, and 20 Mev. 54.
- Spurr, R. T.* Creep and static friction. 739.
- Squire, C. F. s. Thompson, J. C.* 469.
- , *Charles F.* Velocity of sound in superconducting tin. 468.
- Apparatus for a new magnetism laboratory. 1846.

- Squire, L. C.* Boundary layer growth in three dimension. 1730.
- , *Robert K. and Moyer, Burton J.* Neutral pion production in proton-proton collisions. 1778.
- , *W. s. Smith, W.* 916.
- Srdoc, D.* Oxygen-quenched Geiger-Müller counter. 1973.
- Sreedhar, A. K. s. Kemp, W. R. G.* 1022, 1317.
- Sreekantan, B. V., Pevsner, A. and Sandri, G.* Angular correlations in V^0 -particle decays. 1334.
- *s. Bridge, H. S.* 1135.
- *s. DeStaeblcr, H. jr.* 1136, 1337.
- Srinivasan, D. and Holroyd, L. V.* Sonoluminescence of water. 501.
- , *R.* Thermal expansion of calcite from roomtemperature up to 400° C. 1961.
- *s. Benson, Sidney W.* 1967.
- , *S. K. s. Ramakrishnan, Alludi.* 2400.
- Sriastava, B. N. and Madan, M. P.* Intermolecular force and coefficient of self-diffusion. 2073.
- — Thermal conductivity of argon-neon mixture. 2311.
- , *R. C. s. Rustogi, R. P.* 1969.
- , *S. S. and Puri, D. D.* Absorption coefficient of liquids in the 1-cm region. 1445.
- Sroka, R. und Fischer, H.* Polarisation und Kristallwachstum bei der Elektrokristallisation von Kupfer. 2159.
- Ssawitsch, A. W.* Fehlen der stabilen Isotope Tc und Pm und andere Anomalien beim Vorhandensein von β -stabilen Kernen. 236.
- Sskobelnik, W. J. und Ssolomko, R. N.* Magnetostatik mit Ferromagneten. 1017.
- Sskolow, A. A. und Ternow, J. M.* Quantentheorie des leuchtenden Elektrons. IV. 935.
- , *A. W.* Absorption und Emission von Röntgenstrahlen in ferromagnetischen Metallen. 250.
- , *Tscherepanow, W. I. und Steinberg, I. B.* Dispersionsformeln der Quantenoptik von Metallen in der Vielelektronentheorie unter Berücksichtigung elektronischer Relaxation. 190.
- und *Zipiz, Ss. M.* Zustandsdichte von Leitfähigkeitselektronen in ferromagnetischen Stoffen. 280.
- Ssokomlo, R. N. s. Sskobelnik, W. I.* 1017.
- Sstratonowitsch, R. L.* Entropie von Systemen mit einer statistisch beliebigen Anzahl von Teilchen. 922.
- Staas, F. A. s. Wansink, D. H. N.* 1948.
- Staats, H. s. Seemann, H. J.* 1893.
- Stacey, K. A. s. Alexander, P.* 1199.
- Stackelberg, M. v. J. Heyrovsky* zum 65. Geburtstag. 1290.
- und *Bischoff, H.* Ideale Palladium-Wasserstoff-Elektrode. Problem der Wasserstoff-Überspannung. 661.
- Stadler, Henry L.* Absorption of positive pions by deuterium at 76 and 94 Mev. 424.
- Stäger, C. s. Epprecht, G. W.* 1876.
- Staehelin, P. s. Maeder, D.* 1149.
- Stämpfli, R.* Method for measuring membrane potentials with external electrodes. 874.
- Stafford, G. H. s. Hillman, P.* 2037.
- Stahl, R. s. Rosendorf, S.* 562.
- , *R. H. and Ramsey, N. F.* Neutron-proton scattering at 91 Mev. 420.
- *s. Seunson, C. A.* 369.
- Stair, Ralph and Johnston, Russell.* Ultraviolet spectral radiant energy reflected from the moon. 1081.
- Stairmand, G. D. s. Parton, J. E.* 813.
- Stallwood, R. A. s. Fields, T. H.* 563.
- *s. Sutton, R. B.* 417.
- Stamm, Hans.* Lebensdauer von Großtransformatoren. 2502.
- , *Robert F. and Button, Peter A.* Rayleigh's ratio (absolute turbidity levels) for benzene, carbon tetrachloride, and toluene. 159.
- und *Lancaster, John E.* s-triazine. V. Raman spectrum. 2059.
- Standing, K. G.* Angular distributions of deuterons from (p, d) reactions in light nuclei. I. Nitrogen. 2364.
- *s. Reynolds, J. B.* 2365.
- Stanley, A. G. s. Shire, E. S.* 2367.
- , *K. J. and Reich, K. H.* Ferromagnetic resonance in nickel and in some of its alloys. 647.
- Standring, W. G. and Looms, J. S. T.* Electrical and luminous characteristics of short air sparks suitable for high speed photography. 315.
- Stanesly, H. s. Laver, F. J. M.* 2176.
- Stanford, C. P. Stephenson, T. E. and Bernstein, Seymour.* Neutron spin from magnetic resonance experiment. 1348.
- *s. Allen, R. G.* 419.

- Stanford, G. S. s. Pieper, G. F. 2012.
- Stang, jr., L. G. Strickland, G., Rand, A. C. and Selvin, G. Design and performance of a portable irradiation unit. 702.
- Stanghellini, A. s. Pedretti, E. 776.
- s. Puppi, G. 1601.
- Stanley, A. G. Proton-gamma angular correlations and gamma-ray angular distributions in the $^{10}(\alpha, p\gamma)^{13}\text{C}$ reaction. 240.
- , C. R. Phenomenon associated with active nitrogen. 98.
- , G. J. s. McGee, R. X. 2234.
- , R. W. and Dieke, G. H. Interferometric wavelengths of iron lines from a hollow cathode discharge. 1610.
- Stanner, W. Verfahren und Anlagen der Funkortung. 1454.
- Stannett, V. and Szwarc, M. Permeability of polymer films to gases — simple relationship. 2438.
- Stansbury, E. J. s. Welsh, H. L. 2056.
- Stunton, J. S. s. Baker, W. H. 224.
- , Leonard s. Sopp, Theodore E. 345.
- Stapp, Henry P. Analysis of triple scattering and correlation experiments. 976.
- Starfelt, N. and Svantesson, N. L. Internal and external bremsstrahlung in connection with the beta decay of N^{35} . 593.
- s. Liden, K. 593.
- Staritzky, Eugene and Singer, Joseph. Optical and X-ray data on a group of isostructural uranium and plutonium compounds. 1004.
- Stark, E. O. s. Warrick, E. L. 2436.
- , K. H. s. Powell, A. 2166.
- , Louis. Lower modes of a concentric line having a helical inner conductor. 2177.
- , R. H. s. Roe, G. M. 110.
- Starkey, T. V. Laminar flow of streams of suspended particles. 1946.
- Starnes, J. W. s. Brolley, jr. J. E. 1539.
- s. Browne, C. I. 65.
- s. Bunker, M. E. 589, 1369.
- s. Duffield, R. B. 964.
- s. Mize, J. P. 1366, 2028.
- Starr, W. L. and Streed, E. R. Modification of the Gier blackbody reflectometer for use with the Beckman IR-3 spectrophotometer. 2522.
- Statz, H. Davis jr., L. and DeMars, G. Nonsteady state conductance of inversion layers and the structure of surface states on germanium. 2127.
- Statz, DeMars, G. A., Davis, jr. L. and Adams, jr. A. Surface states on silicon. 1434.
- , —, — Surface states on silicon and germanium surfaces. 1653.
- s. DeMars, G. 2127.
- Staub, H. H. s. Bumiller, F. 39, 1150, 2380.
- Staubwasser, Wolfgang s. Diehl, Jörg. 1101.
- Staupe, Herbert s. Günther, Gabriele. 2143.
- Stauss, H. E. and Sandoz, G. Magnetostrictive material. 2546.
- Steacie, E. W. R. s. Ayscough, P. B. 1258.
- s. Ivin, K. J. 2202.
- Stearns, C. s. Lehovc, K. 823.
- , M., Stearns, M. B., BenedettiDe, S. and Leipuner, L. Limits on π -meson mass from mesonic X-rays. 47.
- , —, — Energie of the K transitions of π -mesonic X-rays. 940.
- , —, — Measurement of π -mass with mesonic X-rays. 397.
- — — Energies of π -mesonic X-ray K lines. 397.
- s. Stearns, M. 47, 397, 940.
- , R. L., Robson, J. W. and Gregg, E. C. Bremsstrahlung spectrum produced by 18-Mev electrons. 558.
- s. Robson, J. W. 607.
- Stech, Berthold. Streuung von Teilchen mit dem Spin $\frac{1}{2}$. I. Relativistische Behandlung der Streuung. 972.
- Mesonische Korrektur beim β -Zerfall. 1792.
- s. Bakke, Finn. 972.
- Stecker, Kurt. Oszillographische Erfassung von Doppelbrechungsänderungen. 1067.
- Steel, W. H. General equation for the choice of glass for cemented doublets. 2190.
- Multiple images in reflecting microscopes. 2520.
- Steele, M. C. Anomalous longitudinal magnetoresistance of metal single crystals. 467.
- Oscillatory galvanomagnetic properties of antimony single crystals at liquid helium temperatures. 1859.
- s. Berlincourt, Ted G. 133.
- , W. A. and Halsey jr., G. D. Interaction of rare gas atoms with surfaces. 2445.
- s. Aston, J. G. 2330.

- Steen, Douglas and Casey, Donald.* Theory of the manometer accelerometer. 544.
- Steenberg, N. R.* Reorientation of aligned nuclei. 50.
- Steenland, M. J. s. Beun, J. A.* 2462.
- *s. Wheatley, J. C.* 2358.
- Steese, C. M. s. Lord, R. C.* 1814.
- Steffen, K. G., Hinrichs, O. und Neuert, H.* Messung einer $n\gamma$ -Winkelkorrelation an der Reaktion $\text{Be}^9(\alpha, n\gamma)\text{C}^{12}$. 1793.
- , *R. M.* Attenuation of the Cd^{111} directional correlation in liquid In^{111} sources. 1372.
- and *Brazos, J. N.* Decay of the 72-sec In^{114} ground state. 1560.
- and *Zobel, W.* Magnetic moment of the 247-kev excited state of the Cd^{111} nucleus. 588.
- *s. Brazos, J. N.* 1560.
- *s. Noble, L. M.* 1164.
- *s. Paul, H.* 589.
- *s. Zobel, W.* 1155.
- , *Rolf M.* Indications of the interaction of electric field gradients and nuclear electric quadrupole moments in angular correlation. 80.
- Steffenhagen, K.* Geräuschminderung bei der Impulsmodemodulation. 1877.
- Stegmüller, Wolfgang.* Wahrscheinlichkeitsproblem. 2262.
- Stegun, Irene A. and Abramowitz, Milton.* Generation of Coulomb wave functions by means of recurrence relations. 1495.
- Stehle, P.* Particle transport, electric currents, and pressure balance in a magnetically immobilized plasma. 1659.
- Steidle, Walter s. Dannenberg, Heinz.* 2061.
- Steigert, F. E. s. Plendl, H. S.* 1157.
- Steigmann, Albert.* Mécanismes de la sensibilisation chimique et de la formation de l'image latente en présence de sels d'or. 2204.
- Stein, Bernard R. s. Schweitzer, George K.* 929.
- , *F. S.* Three-way vacuum valve. 905.
- , *G. s. Rigg, T.* 1068.
- , *Gabriel.* Réductions par irradiation de solutions aqueuses. 613.
- *s. Day, M. J.* 2227.
- , *Günther.* Bildungsfragen. Zum 50jährigen Jubiläum des „Deutschen Museums“ in München im Mai 1953. 2256.
- Stein, Irving.* Completed quantum theory. 537.
- , *Marvin L.* Methods for obtaining solutions of fixed end-point problems in the calculus of variations. 896.
- , *M. O. s. Ashkin, J.* 2395.
- , *P.* Bounds of multiple characteristic roots of a matrix. 2258.
- , *Peter. s. Odian, Allen.* 1146.
- , *P. C. s. Odian, A. C.* 953.
- *s. Osborne, L. S.* 941.
- *s. Weinstein, R. M.* 1542.
- , *Richard S. s. Kestigian, Michael.* 1633.
- , *Rudolf und Reuter, Bertold.* Photoeffekte in Bleisulfid und verwandten Substanzen. II. 1036.
- , *S. s. Gerjuoy, E.* 968, 1000, 1623.
- Steinberg, I. B. s. Ssokolow, A. W.* 190.
- , *Jean-Louis s. Alon, Ladine.* 2231.
- Steinberger, I. T., Low, W. and Alexander, E.* Influence of alternating electric fields on the light emission of some phosphors. 1891.
- *s. Low, W.* 1070.
- , *J. and Wolfe, Harry, B.* Electrons from muon capture. 2002.
- *s. Chinowsky, W.* 47, 2002.
- *s. Lokanathan, S.* 943.
- Steindler, Martin J. s. Hohnstedt, Leo F.* 906.
- Steinlin, U. s. Becker, W.* 881, 1909.
- Steinmayer, R.* Tagung der Österreichischen Physikalischen Gesellschaft in Wien. 1490.
- und *Gheri, H.* Langjährige Änderungen in der Phase des Tagesganges der kosmischen Strahlung. 2401.
- *s. Smekal, A.* 894.
- Steinwedel, Helmut.* Hauptachsentransformation der Dipol-Hamiltonfunktion des freien und gebundenen Elektrons im elektro-magnetischen Strahlungsfeld. 1094.
- Steljes, John F. s. Carmichael, Jugh.* 1605.
- Stelle, P. s. Theissing, H. H.* 1696.
- Stellmacher, K. L.* Erzwungene nicht-lineare Schwingungen hoher Erregerfrequenz und ihre Stabilität. 2281.
- Stelson, P. H.* Angular distributions of α particles from the $\text{Na}^{23}(\text{p}, \alpha)\text{Ne}^{20}$ reaction. 70.
- and *Campbell, E. C.* Cross section for excitation of $\text{Pb}^{208\text{m}}$ by inelastic scattering of neutrons. 410.
- and *McGowan, F. K.* Angular distribution of gamma rays from Coulomb excitation. 590.

- Stelson, P. H. and McGowan, F. K.* Coulomb excitation of states in thallium and lead. 1787.
- , — Gamma-ray yields from Coulomb excitation. 2026.
- *s. Campbell, E. C.* 1153.
- *s. McGowan, F. K.* 2027.
- Stenzel, Heinrich* †. 2254.
- Stephan, Wolfgang.* Bitter-Streifen auf Nickel. 645.
- Stephen, M. J. and Danby, C. J.* Effect of inhibitors on the hydrogen-deuterium exchange reaction. 383.
- Stephens, D. V. s. Nevin, T. E.* 2412.
- , *F. Hummel, J., Asaro, F. and Perlman, I.* Alpha groups and angular correlation of Am^{243} . 1792.
- *s. Asaro, F.* 591, 968, 1564.
- *s. Perlman, I.* 591.
- , *Frank, jr., Asaro, Frank and Perlman, I.* Low-lying 1-states in even-even nuclei. 70.
- *jr., F. S., Asaro, Frank and Perlman, I.* Radiations from 1-states in even-even nuclei. 2030.
- *s. Hummel, J. P.* 965.
- *s. Rasmussen, John O.* 1550.
- , *Robert E.* Computation of achromatic objectives. 1252.
- , *Sarah Jane s. Hackerman, Norman.* 2446.
- , *W. E. and Mann, A. K.* Energy spectrum of photoprotons from carbon. 576.
- , — *Patton, B. J. and Winhold, E. J.* Fine structure in the (γ , p)reaction in oxygen. 954.
- *s. Mann, A. K.* 588.
- , *William E. s. Toms, M. Eluine.* 768, 953.
- Stephenson, C. V.* Radial vibrations in short hollow cylinders of barium titanate. 673.
- , *Harold P.* Solution spectra and oscillator strengths of electronic transitions of pyridine and some monosubstituted derivatives. 2062.
- , *L. M. s. Barlow, H. E. M.* 824.
- , *S. K.* Filters for health film holders. 703.
- , *T. E. s. Allen, R. G.* 419.
- *s. Sherwood, J. E.* 1378.
- *s. Stanford, C. P.* 1348.
- , *W. L.* Measurements of junction-transistor noise in the frequency range 7–50 kc/s. 653.
- Stergis, C. G., Coroniti, S. C., Nazarek, A., Kotas, D. E., Seymour, D. W. and Werme, J. V.* Conductivity measurements in the stratosphere. 711.
- Sterk, M. s. Wapstra, A. H.* 2024.
- , *M. J. and Wapstra, A. H.* Gamma-ray intensity measurements by means of a Na(Tl) scintillation spectrometer. 1979.
- , *Nussbaum, R. H. and Wapstra, A. H.* Decay of ^{15}Ti and the nuclear levels in ^{51}V . 1575.
- , *Wapstra, A. H. and Kropveld, R. E. W.* Nuclear levels of ^{48}Ti . 2029.
- *s. Aten jr., A. H. W.* 2381.
- *s. Nussbaum, R. H.* 1573.
- Stern, A. P. s. Chow, W. F.* 1041.
- , *F. s. Talley, R.* 472.
- , *Frank.* Valence wave functions for the $3d/4s$ and $3d^8$ configurations of atomic iron. 1803.
- , *Malvin D. s. Kronman, Martin J.* 2082.
- , *M. O. s. Ashkin, J.* 424.
- *s. Feiner, F.* 982.
- Sternglass, E. J. and Wachtel, M. M.* Transmission secondary electron multiplication for high resolution counting and imaging. 1124.
- , — Measurement of low-energy electron absorption in metals and insulators. 1447.
- *s. Holliday, J. E.* 1182.
- Sternheimer, R. M.* Polarization of nucleons elastically scattered from nuclei. 83.
- Energy distribution of γ rays from π^0 decay. 235.
- Polarization of nucleons elastically scattered from nuclei. 414.
- Electronic polarizabilities of ions from the Hartree-Fock wave functions. 1300.
- Angular distribution of pions from Θ^0 decay. 1325.
- Energy distribution of γ rays from π^0 decay. 1523.
- Total cross sections for scattering and absorption of pions by nuclei. 2002.
- *s. Block, M. M.* 1339.
- Stettler, R.* Optische Abbildung von Flächen und Räumen. 1465.
- Steubing, W. and Günther, R.* Fowler-Linie 4686 ÅE des ionisierten Heliums im homogenen elektrischen Feld. 1184.

- Steudel, Andreas.* s. *Kopfermann, Hans.* 994.
- s. *Lührs, Gerold.* 1398.
- s. *Penselin, Siegfried.* 856.
- , *H.* Namur-Hauptsitzung. 2257.
- Stevens, J. M. and Kats, A.* Systematics of imperfections in silicon-oxygen networks. 1824.
- s. *Kats, A.* 1824.
- s. *Volger, J.* 1407.
- Stevens, C. M.* s. *Huizenga, J. R.* 1355.
- s. *Magnusson, L. B.* 579.
- s. *Studier, M. H.* 71.
- , *D. K.* Magnetic susceptibility of fast neutron bombarded crystalline quartz. 1175.
- and *Crawford, J. H. jr.* Magnetic susceptibility of indium antimonide. 2129.
- , *Cleland, J. W. jr., Crawford, J. H. and Schweinler, H. C.* Magnetic susceptibility of germanium. 1855.
- s. *Crawford, J. H. jr.* 1035.
- Stevenson, Donald T.* Surface-recombination velocity and surface conductance of thin germanium slabs. 2127.
- , *J. R.* Electronic structure of magnesium oxide. 845.
- , *M. L. s.* *Crawford jr., F. S.* 46.
- , *M. Lynn s. Alvarez, Luis W.* 1521, 1604.
- s. *Crawford jr., Frank S.* 942.
- , *P. C. s.* *Folger, R. L.* 407.
- Steward, E. G. s. Robinson, K.* 1706.
- Stewardson, E. A. and Wilson, J. E.* M_{IV}, V spectra of ^{68}Er . 1130.
- s. *Chapman, K. R.* 422.
- Stewart, A. B.* Glow discharge resonance. 1441.
- and *Owen, G. E.* Oscillating glow discharge plasma. 1048.
- s. *Warner, R. E.* 144.
- , *A. T. and Green, R. E.* Angular correlation of photons from positron annihilation in light metals. 1130.
- s. *Brockhouse, B. N.* 1597.
- , *Chandler.* Measurement of quality factors of inductor cores. 2543.
- , *D. T. and Emeleus, K. G.* Experiment by Rayleigh on active nitrogen. 781.
- , *J. D.* Theory of thermal-neutron reactors. 2347.
- , *James E.* Absorption of radiant energy by solid particles in suspension. 1207.
- , *J. L.* Parallel-network oscillators. 1668.
- Stewart, F. L. s. Medhurst, R. G.* 2510.
- , *John Q.* Kinds of energy. 367.
- , *L. s. Frye, G. M. jr.* 1540.
- , *Leona.* Neutron spectrum and absolute yield of a plutonium-beryllium source. 933.
- s. *Rosen, Louis.* 1771.
- , *M. G., Scharenberg, R. P. and Wiedenbeck, M. L.* Angular correlation of the gamma rays of Ba^{134} . 1555.
- — s. *Scharenberg, R. P.* 1582.
- , *R. W. and English, W. N.* Fluctuation of sound transmitted in the ocean. 2249.
- Stewartson, K.* Steady flow past a sphere at high Reynolds number using Oseen's approximation. 1730.
- Motion of a sphere through a conducting fluid in the presence of a strong magnetic field. 2111.
- Stiehler, R. D. s. Martin, G. M.* 1287, 1415.
- Stier, P. M. and Barnett, C. F.* Electron capture cross section for protons. 1607.
- , — and *Evans, G. E.* Charge states of heavy-ion beams passing through gases. 428.
- — *Howard, R. A. and Bugg, W.* Charge states of hydrogen ions in gases. 1394.
- s. *Barnett, C. F.* 1182, 1803.
- Stieve, F. E.* Theoretische Überlegungen und praktische Winke zum Röntgenschnittverfahren. 344.
- Stille, U.* Richard Vieweg 60 Jahre. 1490.
- , *Ulrich, s. Cario, Günther.* 178, 708.
- Stiller, B. Seeman, N. and Shapiro, M. M.* Nonmesonic decay of a helium hyperfragment. 1521.
- , — Stopped K-mesons observed near the geomagnetic equator. 1337.
- s. *Seeman, N.* 1134, 2350.
- Stihrell, C. R. s. Collins, R. J.* 475.
- Stine, Howard A. and Winovich, Warren.* Application of light-scattering theory to the measurement of density fluctuations in turbulent fluids. 2197.
- Stirland, D. J. s. Campbell, D. S.* 1237.
- Stirlin, A. s. Behrends, R. E.* 1716.
- Stirpe, Dante.* Electrodeposition of metals on sodium tungsten bronze crystals. 2163.
- Stitch, M. L. s. Honig, A.* 785.
- Stock, J. s. Labs. D.* 351.
- , *John R.* Arithmetic unit for automatic digital computers. 536.

- Stock, Jurgen.* Critical time period and the Schwarzschild exponent in photographic processes. 2533.
- Stocker jr., W. M.* Nickel-plate aluminium for solder joining. 2549.
- Stockmayer, W. H. and Hecht, C. E.* Heat capacity of chain polymeric crystals. 805.
- Stodiek, W.* Arrangement for precise scattering measurements in nuclear emulsions. 930.
- Stöckmann, F.* Negative Photoeffekte in Halbleitern. 821.
- Stoeckmann, F., Klontz, E., Fan, H. Y. and Lark-Horovitz, K.* Photoconductivity of electronbombarded Ge. 2124.
- Stöckmann, F. s. Pagnia, H.* 799.
- Stössel, W. s. Menzel, E.* 268, 445.
- Stoicheff, B. P.* High resolution Raman spectroscopy of gases. V. Rotational spectra of allene, allene- d_4 , and allene- $1,1-d_2$. 2409.
- Stocker, J. J.* Stability of mechanical systems. 196.
- , *P. H.* Generation of the soft component of the cosmic radiation in lead. 2399.
- *Hok, Ong Ping, Haan, de E. F. and Sizoo, G. J.* 30 cm double focusing magnetic spectrometer with an annular iron yoke. 556.
- Stokes, A. R. s. Hooper, C. W.* 1001.
- , *R. J. s. Cottrell, A. H.* 732.
- Stokinger, Herbert E.* Size of dose: Its effect on distribution in the body. 2558.
- Stoll, P. s. Erdös, P.* 1360.
- *s. Glättli, H.* 34, 1972.
- *s. Nabholz, H.* 596.
- , *S. J.* Origin and analysis of gas in electron tubes. 1658.
- Stolovy, A. and Harvey, J. A.* Fast chopper measurements of radiation widths. 1554.
- Stolte, Herbert s. Rumpf, Kurt K.* 1308.
- Stommel, Henry.* Circulation in the North Atlantic Ocean. 1485.
- Stone, A. P.* Calculation of isotope shifts in the spectrum of helium. 994.
- Isotope shifts in the spectrum of helium. 1399.
- , *Gerald, Carbone, Robert and Everhart, Edgar.* Validity criteria for calculating the differential cross section for collisions of Kev ions with atoms. 1394.
- Stone, Gerald s. Carbone, Robert J.* 1394.
- *s. Everhart, Edgar.* 1394, 1584.
- , *N. W. B., Elliott, K. W. T. and Bigg, P. H.* Influence of barometric pressure on watch and chronometer rates. 904.
- , *R. P. Mueller, C. W. and Webster, W. M.* Time-sampling and amplitude-quantizing tube. 2518.
- *s. Knoll, M.* 683.
- , *W. M.* Effect of integration in a pulsed radar, randomly modulated carrier. 2515.
- Stoneley, R.* Propagation of surface elastic waves in a cubic crystal. 1940.
- Storch, Leo.* Synthesis of constant-time-delay ladder networks using Bessel polynomials. 1669.
- Storey, Clifford F., Cusmano, Joseph V. and Love, Donald J.* Portable roentgen-ray stereoscopic unit. 2226.
- Stork, D. and Wheatstone, S.* Cross section for $p + p \rightarrow \pi^+ + p + n$. 1524.
- *s. Whetstone, S.* 1601.
- , *D. H. s. Birge, R. W.* 1337, 1755.
- *s. Kerth, L. T.* 1336.
- , *Donald H. s. Whetstone, Stanley L. jr.* 2395.
- Stormanns, A.* Neufassung der Vorschriften für die Errichtung von Starkstromanlagen unter 1000 V. 2502.
- Storruste, A. s. Messelt, S.* 2397.
- Story, J. S. s. Perring, J. K.* 1146.
- Stott, A. and Axon, P. E.* Subjective discrimination of pitch and amplitude fluctuations in recording systems. 378.
- Stout, V. L. and Gibbons, M. D.* Thin film interference phenomena applied to a study of gettering by titanium. 542.
- *Gettering of a vacuum vessel by titanium metal.* 905.
- Stoutenburg, D. V. s. Kraus, J. D.* 1281.
- Stoyko, A.* Travaux soviétiques sur le service de l'heure. 175.
- , *Anna* Propagation des ondes radio-électriques d'après les signaux doublés directs et de superpropagation. 2506.
- , *N.* Rapport succinct sur les travaux russes d'astronomie fondamentale. 174.
- Strachan, E. s. Barrer, R. M.* 113.
- Strait, Louis A., Goyan, Frank M. and Kumler, W. D.* Semisolid nickel sulfate filter. 157.

- Strait, Louis A. s. Goyan, Frank M.* 163.
- Straker, T. W.* Ionospheric propagation of radio waves of frequency 16 kc/s over short distances. 678.
- *s. Bain, W. C.* 1914.
- Straley, Joseph W. s. True, Tom T.* 624.
- Stram, O. s. Epstein, H.* 487.
- Strandberg, M. W. P.* Electronic contribution to effective nuclear masses in molecules. 431.
- and *Peter, M.* Precision of microwave spectrographs. 2060.
- *s. Peter, M.* 1404, 2181.
- *s. Posener, D. W.* 435.
- *s. Swan, P. R.* 431.
- *s. Tinkham, M.* 1621, 1817, 2180.
- Stranks, D. R.* Scintillation counter for the assay of radioactive gases. 757.
- Stranski, I. N., Strauß, E. und Wolff, G.* Tribolumineszenz beim Arsenik. II. 500.
- *s. Gross, G.* 501.
- *s. Knacke, O.* 2069.
- *s. Plieth, Karl.* 1899.
- Strassburg, Werner s. Rose, Adolf.* 2213.
- Strassmann, F. s. Fritze, K.* 1768, 1984.
- Stratton, F. J. M. Thomas Royds.* 1089.
- *R.* Field emission from semiconductors. 484.
- Effect of field emission on the behaviour of semiconductor contacts. 1855.
- *T. F. Blair, J. M., Famularo, K. F. and Stuart, R. V.* Experimental determination of the absolute differential cross sections for the $O^{16}(d, p)O^{17}$, $O^{16}(d, p)O^{17*}$ and $O^{18}(d, p)O^{19}$ reactions. 977.
- *Famularo, K. F., Holmgren, H. D. and Stuart, R. V.* Excited state of oxygen-19. 65.
- *s. Patter, D. M. van.* 572. *
- Straub, W. D. s. Davis, L. jr.* 134.
- Straubel, H.* Anwendungen für Halbleiterwiderstände. Allstrom-Motor. 1038.
- Zerstäuber für das Flammenphotometer. 1064.
- Öltröpfchenversuch von Millikan. 2258.
- Strauch, Karl.* Double-scattering experiment with 96-Mev protons. 975, 1588.
- Straughan, B. W. s. Bardsley, W.* 2072.
- Strauss, A. J. s. Kurnick, S. W.* 135.
- *E. s. Stranski, I. N.* 500.
- Strauß und Torney, Lothar von.* Substanzbegriff in der modernen Physik. 190, 542.
- Komplementarität. 537.
- Streed, E. R. s. Starr, W. L.* 2522.
- Street, J. C. s. Carter, R. S.* 387.
- *R. and Hall, E. O.* Magnetic domain structure in twinned crystals of silicon iron. 1075.
- *s. Phillips, J. H.* 336.
- Streeter, D. J. s. Boyer, R. F.* 2082.
- Streetman, J. R. and Matsen, F. A.* United atom-separated atom treatment of H_2^+ . 1401.
- Strehlow, H.* Elektrokapillarität an der Phasengrenze Ligroin-Wasser. 641.
- *s. Oel, H. J.* 1438.
- *Hans.* Einzelelektrodenpotential. 2143.
- Streib, J. F.* Elastic scattering of electrons by Li^6 and Li^7 . 1800.
- *s. Farmer, Donald J.* 1129.
- *s. Schmidt, F. H.* 390.
- Stribel, Th.* Zerfallsschema des J^{128} . 580.
- γ -Strahlung des Tellur-129. 580.
- Strickland, G. s. Stang, L. G. jr.* 702.
- Strickland-Constable, R. F. s. Morris, J. B.* 1194.
- Striganov, A. R. Korostyleva, L. A. und Doncov, Ju. P.* Isotopieverschiebung im Spektrum des Plutoniums. 1805.
- *s. Korostyleva, L. A.* 1805.
- Strigel, R.* Bestimmung der elektrischen Durchschlagsspannung und Durchschlagsfestigkeit von Isolierstoffen. Einführung zum Entwurf VDE 0303 Teil 2/... 53. 676.
- Strijland, J. s. Michels, A.* 1959.
- Stripp, K. F. and Moore, A. R.* Effects of junction shape and surface recombination on transistor current gain. II. 2480.
- Stroffolini, R. s. Bosco, B.* 539, 2041.
- Stroh, A. N.* Brittle fracture and yielding. 199.
- Formation of cracks in plastic flow. II. 732.
- Strength of Lomer-Cottrell sessile dislocations. 2425.
- *s. Frank, F. C.* 2423.
- Strohmeier, W.* Elektrolytische Leitfähigkeit von Quecksilber-, Cadmium-, Zink- und Magnesium-Diphenyl, gelöst in Heptan, Benzol, Dioxan und Äther. 2153.

- Strohmeier, Walter.* Dipolmomente von Hg-Cd-Zn- und Mg-Diphenyl in Benzol und Dioxan. 2497.
- Stroke, George W.* Interferometric measurement of wave-front aberrations in gratings and echelles. 1460.
- *s. Harrison, George R.* 1460.
- *H. H. s. Christensen, R. L.* 1612.
- *s. Reynolds, J. B.* 1808.
- Stromberg, Robert R. s. Swerdlow, Max.* 1838.
- Strominger, D. and Rasmussen, J. O.* 4.1×10^{-8} second metastable state in Pa^{231} . 1158.
- *Donald s. Rasmussen, John C.* 1550.
- Strong, H. M. and Bundy, F. P.* Measurement of temperatures in flames of complex structure by resonance line radiation. I. General theory and application to sodium line reversal methods. 2328.
- , — II. Sodium line reversal by high-resolution spectroscopy. 2328.
- *s. Bundy, E. P.* 2328.
- Strunz, H.* Laueit, $\text{MnFe}_2^{+++} [\text{PH}(\text{PO}_4)_2 \cdot 8 \text{H}_2\text{O}]$, ein neues Mineral. 2547.
- Struth, Wolfgang s. Schardin, Hubert.* 2547.
- Strutt, M. J. O. s. Guggenbühl, Walter.* 1040.
- Stuart, Alexander Verriijn.* Specific influence of solvents on the infrared spectra of alcohols. 432.
- *H. A., Viel, U. und Hartmann-Fahnenbrock, M.* Morphologische Struktur bei festen Körpern mit Fadenmolekülen. 266.
- *s. Fendler, H. G.* 266.
- *J. T.* Solution of the Navier-Stokes and energy equations illustrating the response of skin friction and temperature of an infinite plate thermometer to fluctuations in the stream velocity. 16.
- *R. s. Weekes, K.* 1913.
- *R. V. s. Simmons, B. E.* 582.
- *s. Stratton, T. F.* 65, 977.
- Stuart-Monteith, G.* Determination of the dynamic properties of crystal diodes. 135.
- Stubbington, C. A. S. s. Forsyth, P. J. E.* 355.
- Stubbins, Warren Fenton.* Beam escape from synchrocyclotrons. 1518.
- Stubbs, P. H. S. s. Clegg, J. A.* 2238.
- Stuckes, Audrey D.* Theoretical and practical considerations of the Johnsen-Rahbeck effect. 2087.
- Studer, F. J. and Cusano, D. A.* Transparent phosphor coatings. 1687.
- Studier, M. H. and Huizenga, J. R.* Correlation of spontaneous fission half-lives. 1355.
- *Gindler, J. E. and Stevens, C. M.* Long-lived isomer of Np^{236} . 71.
- *s. Fields, P. R.* 1578, 2370.
- *s. Ghiorso, A.* 1322.
- *s. Magnusson, L. B.* 579.
- Stueckelberg, E. C. G. und Wanders, G.* Deutung der relativistischen Wellenfunktionen. 186.
- , — Thermodynamique en relativité générale. 1293.
- Stuelpnagel, T. R. and Dallas, J. P.* Off-on modulated reversing clutch servo systems. 908.
- Stümke, H.* Quasigeostrophische Darstellung von Konvektionsvorgängen in einer Atmosphäre mit Sperrflächen oder mit freier Oberfläche. 2250.
- Berechnung der Drucktendenz bei Wärmezufuhr innerhalb einer isothermen Atmosphäre von konstanter Grundgeschwindigkeit. 2581.
- Stull, D. R. Towsley, F. E., Kenaga, K. S. and Graham, E. L.* Constant power source for calorimetry. 23.
- *J. L. s. Bickford jr., L. R.* 2463.
- Stump, R.* Angular correlation of annihilation radiation in superconducting lead. 1332.
- Sturley, K. R.* Technical education and training in Germany. 1491.
- Sturm, W. J. s. Binder, D.* 610, 1823.
- Sturrock, P. A.* Perturbation characteristic functions and their application to electron optics. 2536.
- *R. F.* Combined optical comparator and scanner with dual trace cathode-ray display. 493.
- *s. Lang, F. A.* 493.
- Stutzman, L. F. s. Landsbaum, E. M.* 1118.
- Subarew, D. N. s. Bogoljubow, N. N.* 190.
- Subotić, Sonja and Maglić, Bogdan.* Accurate determination of the energy of the $\text{C}(d, n)^3\text{He}$ reaction. 767.
- Sucher, J. and Foley, H. M.* Relativistic and magnetic spin interactions in heliumlike atoms. 428.

- Sun, C. R. and Wright, Byron T.* Double-channel magnetic beta-ray spectrometer for short-lived activities. 1516.
- , *K. H. and Szydlak, P.* How to increase sensitivity of alpha-particle photographic detection. 2340.
- Sundaram, S. s. Venkateswarlu, K.* 1187.
- Sunde, A. s. Eriksen, V. O.* 1979.
- , *E. D.* Theoretical fundamentals of pulse transmission. I. 301.
- Sunyar, A. W.* Fast E2 transitions. 969.
- *Mihelich, J. W. and Goldhaber, M.* Decay of $\text{Cs}^{134\text{m}}$ (3.1 hr). 1360.
- *s. Alburger, D. E.* 592, 1555.
- *s. Church, E. L.* 1360.
- Sunyer, Ferran i Balaguer.* Théorème de Denjoy-Carleman-Ahlfors. X2259.
- Suran, J. J. and Keonjian, E.* Semiconductor diode multivibrator. 2181.
- *s. Kerr, J. S. S.* 2116.
- *s. Schaffner, J. S.* 478.
- Suratman, P. C. s. Leeden, P. van der.* 2295.
- Surdin, M.* Théorie des fluctuations électriques dans les semi-conducteurs. 1024.
- Surduts, Aron.* Méthode de mesure de la constante diélectrique et de la perméabilité complexe dans la bande des hyperfréquences. 1050.
- Suri, S. K. s. Graves, William E.* 2378.
- Surtees, Walter J. s. Watt, James R.* 2184.
- Suseela, B.* Kinetics of the oxidation of red phosphorus by ceric sulphate. 2326.
- Susen, Carl Ludwig.* Informationsdienst. Stand der Technik. 1289.
- Sutcliffe, R. C.* Rain-natural and artificial. 1704.
- Sutherland, D. G. s. Thompson, Dudley.* 2306.
- , *G. B. B. M. s. Mara, R. T.* 1826.
- , *J. W.* Electrical breakdown in waveguides at 3000 mc/s. 151.
- Sutoki, Tomiya s. Nakajima, Koichi.* 2069.
- Sutra, Mlle Geneviève.* Aspect chimique de la conductibilité électrique des métaux et alliages. 467.
- *Changements dans la conductibilité électrique des métaux lors de la fusion.* 1871.
- *Geneviève.* Critère pour l'étendue de la dissociation électrolytique des sels fondus. 2151.
- *Mlle.* Ion hydrogène en solution dans l'eau. 2151.
- Sutton, A. L. and Hume-Rothery, W.* Lattice spacings of solid solutions of titanium, vanadium, chromium, manganese, cobalt and nickel in α -iron. 867.
- , *C. R. and Leeser, D. O.* Radiation effects on reactor materials: Metals. 1127.
- , *O. G.* Development of meteorology as an exact science. 1486.
- , *R. B., Fields, T. H., For, J. G., Kane, J. A. Mott, W. E., and Stallwood, R. A.* Proton-proton scattering at 437 Mev. 417.
- *s. Fields, T. H.* 563.
- , *Sir Graham.* Thermonuclear explosions and the weather. 711.
- Suura, H.* Radiative correction to electron scattering. 608.
- , *Hiroshi.* Radiative correction to high-energy electron scattering. 1597.
- Suzuki, Akira s. Yoshida, Umejiro.* 1508.
- , *Hideji.* Theory of the formation of slip bands in face-centred cubic crystals. 733.
- *Slow motion of dislocation in face-centred cubic crystal.* 1627.
- , *Itaru s. Takano, Yoshirô.* 1297.
- , *Kazuo s. Shirane, Gen.* 2423.
- , *Masazi s. Nishimura, Genrokuro.* 2584.
- , *Tomizo s. Takayama, Kazuo.* 145.
- , *Yasumasa s. Miyatani, Shin-ya.* 2476.
- Svantesson, N. L. s. Starfelt, N.* 593.
- Svenson, A. C. s. Thomas, J. A.* 2574.
- Svensson, Harry and Forsberg, Ragnar.* Optical system for simultaneous recording of refractive index and its gradient in stratified solutions. 853.
- Swami, M. S. s. Fry, W. F.* 393, 394, 562, 938, 1526, 1754, 1755, 1778, 1994, 2000.
- *s. Schneps, J.* 1994.
- Swan, J. B. and Hill, R. D.* Internal conversion in the L-subshells. 1163.
- , *P.* Elastic scattering of electrons by the excited 2s and 2p states of atomic hydrogen. 779.
- *Ionization by electrons of the excited 2s and 2p states of atomic hydrogen.* 779.
- , *P. R. and Strandberg, M. W. P.* Excited torsional states in asymmetric hindered rotors. 431.
- Swann, C. P. and Metzger, F. R.* Production of $\text{Y}^{89\text{m}}$, $\text{Ba}^{137\text{m}}$ and $\text{Hg}^{199\text{m}}$ by inelastic neutron scattering. 1568.

- Swann, C. P., Rothman, M. A., Porter, W. C. and Mandeville, C. E.* Gamma rays from proton capture in Li^7 . 1154.
- , *W. F. G.* Matters pertaining to the internal structure of nucleons. 366.
- Acquirement of cosmic-ray energies by betatron action. 987.
- Limitations on space current densities in galactic and intergalactic space. 1176.
- Teaching of physics. 1919.
- Swanson, C. P. and Yost, Henry T. jr.* Induction of activated stable states in the chromosomes of tridactantia by infra-red and X-rays. 704.
- , *John A.* Saturation Hall constant and magnetoresistance in semiconductors. 1026.
- , *R. A. s. Warsaw, S. D.* 1353.
- , *Robert E. and McFarland, Robert H.* Temperature sensitivities of the sensitized fluorescence spectrum of thallium. 1400.
- , *R. W. s. Bavel, C. H. M. van.* 1704.
- Swart, E. R. s. Haul, R. A. W.* 2273.
- Swartz, C. E. and DeWire, J. W.* High-energy photon spectrometer. 1325.
- Swarup, Krishnaji and Swarup, Prem.* Dielectric behavior of methyl bromide in 3-cm region. 2496.
- Swarup, Prem.* Absorption and dispersion of microwaves in methyl bromide. 1444.
- *s. Krishnaji.* 2167.
- *s. Swarup, Krishnaji.* 2496.
- Sweet, L. O.* Measurement of small attenuations. 1639.
- Sweetman, D. R.* Elastic scattering of protons by helium 3. 602.
- Swenson, C. A.* Compression of the alkali metals to 10000 atmospheres at low temperature. 1306.
- Properties of indium and thallium at low temperatures. 2114.
- and *Stahl, R. H.* Efficient cryostat for producing temperatures between 4° and 80°K : production of liquid hydrogen targets using liquid helium. 369.
- Swerdlow, Max and Heckman, F. A.* Nucleation in the hydration of tricalcium silicate. 1898.
- and *Stromberg, Robert R.* Pores in collagen and leather. 1838.
- Swetnick, M. J. s. Neuburg, H. A. C.* 427.
- Swiatecki, W. J.* Nuclear surface energy and the diffuseness of the nuclear surface. 566.
- Average nuclear potentials and densities. 566.
- Systematics of fission asymmetry. 1777.
- Systematics of spontaneous fission half-lives. 1777.
- Perturbation treatment of the many-body problem. 2265.
- Deformation energy of a charged drop. I. Qualitative features. 2369.
- Swick, D. A., Karle, I. L. and Karle, J.* Structure and internal motion of hexachloroethane. 2054.
- Swihart, J. C. and Belinfante, F. J.* Quantized linear theory of gravitation. II. 1710.
- *s. Belinfante, F. J.* 1710.
- Swim, R. T. and Rorschach, H. E. jr.* Flow of helium II through narrow slits. 634.
- Swindells, A.* Instrument for measuring speed fluctuations and a method of calibrating such instruments. 2290.
- , *Frank E.* Lanthanum oxychloride phosphors. 168.
- , *J. F., Coe, J. R. jr. and Godfrey, T. B.* Absolute viscosity of water at 20°C . 2287.
- *Hardy, R. C. and Cottingham, R. L.* Precise measurements with Bingham viscometers and Cannon master viscometers. 202.
- Swings, P. and Mack, J. E.* Sub-Committee h(exchange of research problems). 1291.
- Sybel, Ch. v. s. Hegemann, F.* 866.
- Sydoriak, Stephen G. s. Roberts, Thomas R.* 1197.
- Sykes, Clarice Z. s. Morris, Kelso B.* 1304.
- , *M. F. s. Domb, C.* 2104.
- Symon, Keith R.* General theory of orbits in FFAG accelerators. 1328.
- Symonds, J. L.* Measuring strong magnetic fields. 1845.
- *s. Burcham, W. E.* 571.
- *s. Chackett, G. A.* 766.
- , *P. S.* Shakedown in continuous media. 1727.
- **Synge, J. L.* Relativity: special theory. 533.
- *s. O'Brien, Stephen.* 2278.
- *s. Pounder, J. R.* 1496.

- Syozi, Itiro and Nakano, Huzio.* Statistical models of ferrimagnetism. 1422.
- Szabó, Zoltán G.* Vierstufenmechanismus; die Lösung der Kinetik von zusammengesetzten Reaktionen. 923.
- Szalay, A. and Berényi, D. sen.* Unusual radioactivity observed in the atmospheric precipitation in Debrecen (Hungary) between Apr. 22-Dec. 31, 1952. 1519.
- Szamosi, G.* Quantum statistics of nucleons. 1574.
- und *Marx, G.* Klassische Bewegung der Nukleonen im Skalarfeld. 2269.
- Szebehely, V. G. s. Bledsoe, M. D.* 1951.
- Szekeres, G.* Formulation of the general theory of relativity. 1712.
- Szigeti, B.* Torsional vibrations of long chain molecules. 2083.
- Szteinszneider, D.* Mesure de l'énergie moyenne des particules α du samarium à l'aide des émulsions nucléaires. 2031.
- Szwarc, M. s. Levy, M.* 996.
- s. *Stunnett, V.* 2438.
- Szydlík, P. s. Sun, K. H.* 2340.
- T**
- Tabern, D. L., Taylor, J. D. and Gleason, G. I.* Radiosotopes in pharmaceutical and medical studies. I. 1080.
- Tabor, D.* Mechanism of rolling friction. II. Elastic range. 739.
- Härte fester Körper.* 1101.
- s. *Eldredge, K. R.* 739.
- s. *Greenwood, J. A.* 206.
- s. *Menzer, J. W.* 807.
- s. *Pascoe, M. W.* 2083.
- s. *Shooter, K. V.* 1312.
- Taconis, K. W.* Bulk formation of helium-II in capillaries. 448.
- s. *Meijdenberg, C. J. N. van den.* 262.
- s. *Wansink, D. H. N.* 1948.
- Taffara, L. s. Costa, G.* 2000.
- Taft, E. and Apker, L.* Photoelectric emission from polycrystalline graphite. 1446.
- , *E. A. s. Dash, W. C.* 2121.
- , *Horace, D.* Scattering of 217-Mev positive pions on hydrogen. 2395.
- Taglang, P. s. Meyer, A. J. P.* 2215.
- Tagliaferri, G. s. Walker, J.* 1323.
- Tai, Yuinkuei s. Millburn, George P.* 1542.
- Tait, J. F. and Williams, E. S.* Assay of mixed radioisotopes. 1989.
- Sait, J. H.* Two-group perturbation theory in neutron transport theory. 1126.
- Takabayasi, T.* Hydrodynamical description of the Dirac equation. 1925.
- Classical spin theory as the limit of the Dirac equation. 1925.
- , *Takehiko.* Quantum condition in the phase-space representation of quantum mechanics. 1295.
- Equivalence between the formulation of quantum mechanics in terms of quantum potential and the one in terms of Markoff-like process. 1295.
- Subsidiary conditions in the phase-space representation of quantum mechanics. 1295.
- Relativistic hydrodynamics equivalent to the Dirac equation. 2266.
- Takagi, A. s. Kato, Y.* 2239.
- , *Mieko.* Electron-diffraction study of liquid-solid transition of thin metal films. 1842.
- , *S. s. Sakihama, K.* 2401.
- , *Yutaka s. Hirano, Ken-ichi.* 1690.
- s. *Oguchi, Takehiko.* 2423.
- Takahashi, Koichi s. Nishimura, Genrokuro.* 2584.
- , *S. and Matsuzaki, I.* Transformer bridge. 298.
- , *T. s. Umezawa, H.* 2357.
- , *Takehito and Satô, Yasuo.* On the theory of elastic waves in granular substance. I. II. 356.
- , *Yasushi.* Gauge invariancy and the structure of elementary particle. 2350.
- Equivalence theorem. 2355.
- Takahata, Masaomi s. Kaneko, Shin-ichi.* 939.
- Takaishi, T.* Ionic adsorption of gases on semi-conductors and their catalytic activities. I. Theory of adsorption. 1965.
- , *Tetsuo.* Ionic adsorption of gases on semi-conductors and their catalytic activities. II. Law of the virtual atmosphere and its applications. 1965.
- Takaki, Hideo and Nakamura, Yoji.* Magnetostriction constants of silicon steel. II. 1690.
- Takaku, Kôshun s. Nomura, Yûkichi.* 1449, 2283.
- Takami, Akira s. Oka, Syoten.* 1307.
- Takamura, Yosomatsu.* Measurement of the net thermal conductivity of fibrous substances. 2438.

- Takano, Y. and Anderson, J. L. Generalization of Feynman's integral over-all-paths formulation of quantum mechanics. 363.
- , Yoshirō and Suzuki, Itaru. Description of field. Classical field. 1297.
- Takata, A. N. s. Meister, A. G. 1816.
- Takayama, Kazuo Suzuki, Tomizo and Yabumoto, Tadaichi. Hall effect in positive column. 145.
- s. Kojima, Shoji. 2488.
- Takayanagi, Kazuo, and Ohno, Kimio. Collisions between non-spherical molecules. I. Molecular collisions in hydrogen gas at lower temperatures. 1745.
- Takebe, Hisao. Beta-ray spectra. I. II. III 967.
- Beta-ray spectra. I. II. 1793.
- Pseudoscalar interaction in the theory of beta-decay and RaE. 2385.
- Takeba, Akitsu s. Shirane, Gen. 2423.
- , Eiichi s. Sakata, Hajime. 2360.
- , Gyo. Branching ratio for alternative modes of decay of hyperons and Θ^0 mesons. 1998.
- and Watson, K. M. Scattering of fast neutrons and protons by atomic nuclei. 421.
- , Ikuo s. Yoshida, Shigetomo. 2500.
- Takemoto, S., Dazai, T., Chiba, R., Suganomata, S. and Ito, S. Angular distribution of proton groups from the reaction $F^{19}(d, p)F^{20}$. 2367.
- Takenaka, Toshio s. Miyake, Shizuo. 2423.
- Takeno, H., Ikeda, M. and Abe, S. Solutions of new-field equations of Einstein and those of Schrödinger. 2264.
- , Hyōtiro. Generalization of special Lorentz transformation in de Sitter spacetime. 2264.
- Static spherically symmetric spacetimes in general relativity. 2264.
- s. Ueno, Yoshio. 2264.
- Taketa, Hiroshi s. Nakamura, Tuts. 815.
- , Naruo and Koga, Toyoki. States not in thermal equilibrium. II. 2336.
- Taketani, M. and Machida, S. Production of negative protons. 2355.
- s. Fujii, S. 2360.
- , Mituo s. Fukuda, Nobuyuki. 1094.
- Takeuchi, Chisato s. Takezaki, Yoshimasa. 924.
- Takezaki, Yoshimasa and Takeuchi, Chisato. Decomposition of methanol induced by methoxy radicals. 924.
- Takiguchi, Robert s. Gardner, W. James. 2228.
- Talat-Erben. Mobilités ioniques et la structure de la chaîne aliphatique normale. 2054.
- Talbot, A. and Kitchener, J. A. Diffusion (or conduction) along a slightly tapering tube, and its application to the determination of diffusion coefficients. 1411.
- , L. s. Bowyer, J. M. 1945.
- Talley, R. and Stern, F. Degeneracy effect in InAs. 472.
- Tallone, L. s. Debenedetti, A. 989.
- Talmi, I. and Carlson, B. C. Pairing effects in the Coulomb energies of mirror nuclei. 48.
- s. Carlson, B. C. 1530.
- s. Lipkin, H. J. 400.
- s. Racah, G. 2009.
- Talpey, T. E. and Macnee, A. B. Nature of the uncorrelated component of induced grid noise. 849.
- Talwar, S. P. s. Chopra, K. P. 2111.
- s. Naqvi, Ali M. 2048.
- Tamada, Kō. Detachment of shock wave from the leading edge of a finite wedge. 2294.
- Tamagaki, Ryoza s. Otsuki, Shoichiro. 2270.
- Tamin, E. s. Belousov, A. 2003.
- , K. Kurtze, G. and Kaiser, R. Measurements of sound absorption in aqueous solutions of electrolytes. 1956.
- s. Kurtze, G. 2303.
- Tamor, S. Polarization in scattering by complex nuclei. 414.
- Tamura, T. s. Machida, S. 2355.
- s. Morita, M. 1783.
- s. Nagasaki, M. 1151.
- , Yuichi. Analysis of electric field after lightning discharges. 2249.
- Distribution of electricity in thunderclouds. 2576.
- Tanabe, I. s. Kimura, R. 1273.
- , Yukito and Sugano, Satoru. Absorption spectra of complex ions. I. II. 2407, 2408.
- Tanaka, Katsumi. Lee model. 365.
- s. Coester, F. 82.
- , Kenzo and Fukuyama, Ikuo. Metastable phase change of ammonium nitrate. 2423.
- , Ryokichi s. Marumori, Thoshio. 1930.

- Tanaka, Sho* and *Umezawa, Hiroomi*. Transition matrix and the Green function in the quantum field theory. 2268.
- *s. Kamefuchi, Susumu*. 1715.
- , *Toshio* and *Watase, Takeo*. Heats of combustion and formation of some methoxypolysilane and -polysiloxane: Si-O bond energy. 1110.
- , *Y. s. Hinotani, K.* 1389.
- *s. Watase, Y.* 940.
- , *Yoshio*. Absorption spectrum of nitrogen in the region from 1075 to 1650 Å. 1404.
- Continuous emission spectra of rare gases in the vacuum ultraviolet region. 1613.
- *s. Wilkinson, P. G.* 2201.
- Tanarro, Agustín y Tanarro, Antonio*. Detector y medidor de radiactividad para laboratorio. 758.
- , *Antonio s. Tanarro, Agustín*. 758.
- Tandon, J. N. s. Naqvi, Ali M.* 1908.
- , *Jagdish Narain*. Oscillations of an infinite cylinder subject to radial magnetic field. 2111.
- Tanford, Charles*. Intrinsic viscosity and kinematic viscosity. 1943.
- Tani, Norito s. Asagoe, Kwan-ichi*. 864.
- , *S.* Connection between particle models and field theories, I. Case spin $\frac{1}{2}$. 2269.
- *s. Fujii, S.* 2360.
- Tanikawa, Yasutaka*. Interaction forms of the beta-decay. 2384.
- and *Saeki, Keiiti*. Theory of beta-decay. 2384.
- Tanimoto, Bennisuke*. Potentials of the simultaneous equations ($\nabla^2 - aD$) $u_i = b \cdot \partial\Theta/\partial x_j$. 183.
- Taniuti, Tosiya*. Cerenkov radiation and supersonic flows. 2518.
- Tannenbaum, Eileen, Coffin, Esther M.* and *Harrison, Anna J.* Far ultraviolet absorption spectra of simple alkyl amines. 439.
- Tannenwald, P. E.* Multiple resonances in cobalt ferrite. 1423.
- Tanner, N. W.* Coincidence measurements on the β -decay of boron 12. 769.
- Angular distribution of γ -radiation from ${}^9\text{Be}(\alpha, n\gamma){}^{12}\text{C}$. 770.
- and *Uebergang, R. G.* Low excited state of Li^7 . 240.
- Tanttilä, W. H. s. Proctor, W. G.* 2458.
- Tao, Kazuhiko s. Fukushima, Madoka*. 2509.
- Tao, Tadami s. Hirao, Kunio*. 2509.
- Taoka, Tadami* and *Ohtsuka, Taiichiro*. Magnetic properties and their temperature dependence of ferromagnetic alloys with an order-disorder transformation. I. Ni_3Fe . II. Ni_3Mn . 337.
- Tapley, J. G. s. Ingram, D. J. E.* 141.
- Tarbell, D. S.* and *Hoffman, P.* Infrared spectra of some 1,4-thiapyrone derivatives. 2410.
- Tarr, Levi*. Experiences with ultrasonic reflectoscope inspection of main seam welds of seven large spheres. 332.
- Tarui, Y. s. Kikuchi, M.* 1229.
- , *Yasui s. Kikuchi, Makoto*. 1040, 1229.
- Tascheek, R. F. s. Diven, B. C.* 2019.
- Tasny-Tschiasny, L.* Nets composed of parts of circles for the approximate solution of field problems. 1292.
- Tassie, L. J.* Nuclear scattering of high energy electrons on the independent-particle model. 1799.
- Tatel, Howard E.* and *Tuve, Merle A.* Nature of a seismogram. I. II. 532.
- *s. Tuve, Merle A.* 518.
- Tati, Takao*. Separation energies and nuclear structures in light nuclei. 2007.
- Many-body problem in the intermediate coupling theory. I. 2269.
- Tatibouet, F. s. Souchay, P.* 2156.
- Tatnall, Francis G.* Field testing techniques using the bonded-wire strain gage. 1073.
- Tatro, C. A.* and *Palfrey, T. R. jr.* High-energy photoproton emission at 175° . 1775.
- Taub, A. H. s. Salzman, G.* 1711.
- , *D. M. s. Beckett, F.* 1880.
- Taube, Henry s. Feder, Harold M.* 2359.
- Tauber, G. E.* Energy levels of Pb^{208} . 1155.
- Energy levels of Pb^{208} . 1552.
- and *Wu, T. Y.* Self-consistent treatment of the nuclear independent particle model. 1139.
- *s. Levitt, L.* 994.
- *s. Wu, Ta-You*. 8.
- Taubert, R. s. Ehrenberg, H. Fr.* 37.
- Tauc, Jan.* Theory of a bulk photo-voltaic phenomenon in semi-conductors. 1227.
- Thermodynamics of non-barrier layer photo voltaic phenomena. 1854.
- and *Matyas, Milos*. Electric and thermoelectric properties of indium antimonide. 1856.

- Taurel, Mlle Lucienne s. Chapelle, Jean.* 160, 2066.
- Taufest, G. W. and Brown, K. L.* Precision monitor for electron beams. 389.
- , *Havill, J. R. and Rubin, Sylvan.* Proton scattering from N^{14} . 976.
- *s. Crowe, K. M.* 1526.
- *s. Helm, R. H.* 1524.
- Tavernier, G. C. s. Capron, P.* 1988.
- Tawde, N. R. and Chandratreya, P. V.* Mass asymmetry effect in Hutchison's theory of vibrational transition probabilities. 2413.
- Taylor, A.* Direct-reading X-ray microdensitometer. 791.
- , *A. E.* Loss of energy of fast protons in matter with particular reference to their range in carbon. 2035.
- and *Wood, E.* Neutron total cross sections between 30 and 153 mev. 2038.
- *s. Randle, T. C.* 1798.
- , *Sir Geoffrey.* Fluid flow in regions bounded by porous surfaces. 1102.
- *s. Morton, B. R.* 736.
- , *G. R. and Darin, S. R.* Tensile strength of elastomers. 1414.
- , *H. F. W. s. Dent, L. S.* 1819.
- , *H. L., Lönsjö, O. and Bonner, T. W.* Nonelastic scattering cross sections for fast neutrons. 1596.
- , *H. W. and Pringle, R. W.* Gamma-gamma directional correlation in Pt^{182} . 1560.
- , *J. B. s. Alfrey, G. F.* 328.
- , *J. C.* Form of the divergencies in quantum electrodynamics. 1093.
- Self-energy effects on meson-nucleon scattering according to the Tamm-Dancoff method. 1299.
- and *Coles, B. R.* Thermoelectric powers of some palladium alloys. 1871.
- , *J. D. s. Tabern, D. L.* 1080.
- , *J. E. s. Brock, E. G.* 1008.
- , *J. G. V. s. Greenberg, L. H.* 1354.
- , *John G. V. s. Kerr, John T.* 947.
- , *Julius H.* Pressure dependence of the resistivity, Hall coefficient, and energy gap for InAs. 1860.
- , *J. J. s. Roys, P. A.* 91.
- *s. Shure, K.* 91.
- , *John Keenan and Smith, Roberta E.* Effects of maxima suppressors on polarographic diffusion currents. 2156.
- , *J. W.* Surface energies of the alkali metals. 112.
- Taylor, J. W.* Significance of wetting in reactor technology. 762.
- , *Lauriston S.* X-ray protection. 2559.
- , *P. H.* Limitis imposed upon optical systems by the axial aberrations. 162.
- , *R. Dean s. Dash, J. G.* 1198.
- , *R. T. s. Cacho, C. F. M.* 1140.
- , *S. s. Harris, G.* 1992, 2353.
- , *T. I. s. Gould, F. T.* 1383.
- , *W. K.* Automatic system for obtaining particle size distributions with the aid of the flying spot microscope. 2095.
- , *Wilfred O. s. Uchirin, George C.* 653.
- Taysum, D. H. s. Dilla, M. A. van.* 1978.
- Tchakirian, Arakel et Vartapetian, Mlle Ophélia.* Étude spectrophotométrique du complexe oxalomolybdique. 622.
- Tchen, C. M.*, Statistical theory of shear turbulence in a parallel flow. 915.
- Teague, D. M. Lewis, C. R. and Twiss, S. B.* Applications of electron microscopy to studies of metallic wear. 2210.
- Teasdale, J. G. s. Sands, M.* 397, 1525.
- Teare, J. D. s. Binnie, A. M.* 1946.
- Teasdale, J. G. s. Walker, R. L.* 1522.
- Tebble, R. S.* Barkhausen effect. 1018.
- Tedder, J. M.* Dielectric constant of trifluoroacetic anhydride and related compounds. 2168.
- Tedford, D. J. s. Aked, A.* 669.
- Teem, J. M., Selove, W. and Kruse, U. E.* Interaction of 95-Mev protons with He^4 . 976.
- Teichmann, Horst.* Wettereinfluß von Atomexplosionen als Störung periodischer Strömungen in der Stratosphäre. 1288.
- Teichner, S. J. and Morrison, J. A.* Adsorption of gases on nickel oxides. 2089.
- Teillac, J.* Conversion interne: Comparaison de quelques résultats expérimentaux et théoriques. 2386.
- *s. Bouchez, R.* 2382.
- , *Jean s. Bouissières, Georges.* 1780.
- *s. Falk-Vairant, Paul.* 2382.
- Teisseyre, R.* Diffraction on a conducting wedge, general solutions for dipole field. 485.
- Tcitel, R. J.* Apparatus for studying irradiated liquid metals. 2348.
- Teitler, S., Lax, M. and Burstein, E.* Absorption by free and bound holes in p-type germanium. 2124.

- Telegdi, V. L. s. Meyer-Schützmeister, L.* 2036.
 — *s. Oxley, C. L.* 2042.
 — *s. Peshkin, M.* 1381.
 — *Valentine L. s. Bio y Sierra, Carlos Sánchez del.* 54.
Telfer, J. C. W. s. Reid, J. M. 1515.
Telford, J. W. and Thorndike, N. S. Large liquid-filled plastic lenses. 2217.
Telkes, Maria. Power output of thermoelectric generators. 1241.
Teller, Edward s. Duerr, Hans-Peter. 1529.
Teltow, J. Impurity diffusion in polar crystals. 259.
Temmer, G. M. and Heydenburg, N. P. Coulomb excitation process in the lighter odd-mass nuclei. 1151.
 — — Energy levels in Ru, Pd and Cd by Coulomb excitation. 1788.
 — — Properties of excited states of Pd and Cd nuclei by Coulomb excitation. 2025.
 — — Fyast E2 transition probabilities from Coulomb excitation. 2026.
 — — Coulomb excitation of Cu, Zn, As, Se and Ru. 2029.
 — *s. Ambler, E.* 569, 2359.
 — *s. Heydenburg, N. P.* 1565, 1788.
Temperley, H. N. V. Liquid cell model applied to ^3He . 902.
Temple, G. Theory of generalized functions. 1091.
 — Generalized functions and Dirichlet's principle. 2259.
Templeman, Malcolm B. s. Morris, Kelso B. 1304.
Templeton, David H. s. Carter, Giles F. 1008.
 — *I. M. s. Linhart, J. G.* 848.
 — *s. Pearson, W. B.* 300.
Tendam, D. J. s. Bleuler, E. 1588.
Tennent, R. M. s. Herz, A. J. 2001.
Tenner, A. G. Mean life-time of mesons in aluminium, sulfur and lead. 2003.
Tenny, F. H. s. Lint, V. A. J. van. 1133.
Terada, Jitsuo. Crystal structure of the Ba, Sr and Ca triple carbonate. 2418.
Teramoto, Ei. Chain configurations and rubber elasticity. 1201.
Teranishi, Eizo s. Suguri, Susumu. 1276.
 — *Roy and Decius, J. C.* Infrared absorption of solid N_2O . 448.
Terao, Kunio. Zündmechanismus im Dieselmotor. 206.
 , *Nobuzo et Sakata, Shigeo.* Electromicroscopie de la surface d'une casure de verre. II. 2216.
Terashima, Yoshinosuke. Plural-multiple model of high energy meson showers. 1758.
Terayama, Hiroshi and Wall, F. T. Reduced viscosities of polyelectrolytes in the presence of added salts. 1631.
Teremetskaja, J. G. s. Gorbatschewa, N. A. 1892.
Terlezki, J. P. und Logunow, A. A. Energiespektrum der Primärkomponente der kosmischen Strahlung. 988.
Ternow, I. M. s. Ssokolow, A. A. 935.
Ter-Pogossian, Michel s. Ittner III, William B. 343, 758.
Terrani, S. s. Bisi, A. 772, 2023.
Terreaux, Ch. Fréquence des gerbes pénétrantes de mésons. 426.
 — *s. Bleuler, K.* 1345.
Terrell, J. and Holm, D. M. Excitation function for $\text{Fe}^{56}(\text{n}, \text{p})\text{Mn}^{56}$. 1770.
 — *s. Diven, B. C.* 2019.
 — *James R. s. Johnson, John C.* 1886.
Terrien, Jean. Étalons de lumière. 690.
 — Mesures de longueur par les interférences. 728.
Terry, N. B. and Woods, H. J. Measurement of elastic wave velocity in small cylindrical specimens. 207.
Tertsch, H. Beobachtungen über Vickers-Mikrohärte am Kalkspat. 2283.
 — *Hermann.* Verwendung von Mikrohärteprüfern nach der Vickers-Methode. 2541.
Terwilliger, K. M., Jones, L. W., Cole, F. T., Kerst, D. W. and Haxby, R. O. Small model FFAG betatron. I. General description. 1328.
 — *s. Jones, L. W.* 1126, 1328.
Teschendorf, W. Vereinfachte Methode der Röntgentiefentherapie mit bewegter Röhre (Rotations- oder Pendelmethode). 345.
Nikola, Tesla. 2255.
Tessman, Jack R. Magnetic anisotropy at 0°K . 464.
Te-Tchao, Ouang. Mesure de la vitesse des ultrasons dans les liquides par des indicateurs radioactifs. 920.
Teucher, M. Höhenabhängigkeit der Sterngrößenverteilung und das Energiespektrum der Nukleonenkomponenten bei $\lambda = 50^\circ\text{N}$. 426.
s. Hänni, F. 1757.
s. Lohrmann, E. 762, 1748.
 , *Martin s. Gottstein, Klaus.* 395.

- Teutsch, W. B. and Hughes, V. W.* Theory of effect of a static electric field on positronium formation. 1331.
- — Hyperfine structure of helium-3 in the metastable triplet state. 96.
- Tewes, H. A. s. Coleman, G. H.* 1142.
- , *Howard A.* Excitation functions for proton-induced reactions of thorium. 574.
- Tewordt, L. s. Madelung, O.* 128.
- Texereau, Jean s. Danjon, André.* 2230.
- Teyssèdre, Mlle Monique s. Souchay, Pierre.* 1963.
- Thacker, R. and Rowlinson, J. S.* Physical properties of some polar solutions. II. Viscosities of the mixed vapours. 1114.
- Thaler, R. M. and McHale, J. L.* S-matrix in terms of phenomenological collision parameters. 1165.
- s. *Biedenharn, L. C.* 1567, 1571.
- s. *Goldstein, M.* 1568.
- s. *McHale, J. L.* 600, 1165.
- Thams, J. C. s. Ambrosetti, Fl.* 1704.
- Thees, Richard und Treupel, Hans.* Mechanische Vakuumpumpen. 1098.
- s. *Krebs, Heinz.* 2063.
- Theile, Richard.* Fernseh-Punktlicht-Abtastung mit Kathodenstrahlröhren. I. Wirkungsweise und Betriebsdaten oder Berücksichtigung des Schirmnachleuchtens. 306.
- Signalzeugung in Fernseh-Bildabtaströhren. II. Aufbau, Arbeitsweise und Betriebseigenschaften der verschiedenen Röhrentypen. 1453.
- Theimer, O.* Règles de sélection pour la diffusion Raman; cas de la calcite. 1195.
- Theis, W.* Elektronenoptische Untersuchungen an Selen. 129.
- , *W. R.* Begründung der Thomas-Fermischen statistischen Theorie. 1092.
- Einheitliche statistische Behandlung der Valenzelektronen in Metallen. 1213.
- Theissen, E.* Influence du cycle solaire sur le facteur de transmission (M3000) F_2 . 677.
- Theissing, H. H. and Caplan, P. J.* Atmospheric attenuation of solar millimeter wave radiation. 349.
- —, *P. and Stelle, P.* Measurements of the solar millimeter wave spectrum. 1696.
- Thellier, E. et Thellier, Mme Odette.* Nouveaux résultats sur la direction et l'intensité du champ magnétique terrestre dans le passé historique. 2239.
- , *Mme Odette s. Thellier, E.* 2239.
- Thellung, A.* Energy spectrum in quantum hydrodynamics and the theory of helium II. 1931.
- Theoclitus, Gregory and Wilkins, Homer C.* Counting efficiency of electromechanical message registers. 385.
- Thewlis, J.* Graphical method for the determination of the unit-cell dimensions of non-cubic materials from X-ray powder photographs. 1002.
- X-ray powder study of β -uranium. 2066.
- and *Davey, A. R.* Thermal expansion of diamond. 2313.
- Thiel, Dieter s. Oelsen, Willy.* 1740.
- Thiele, E. s. Fanslan, G.* 2569.
- , *H. und Kienast, G.* Einfluß von Ionen auf die Struktur bei der Gelbildung. 2449.
- , *Walter.* Skalengalvanometer. 116.
- Thieme, M. T. and Bleuler, E.* Decay of Au^{194} and Au^{196} . 1562.
- — Conversion of the Pt^{196} gamma rays. 2383.
- Thiers, Ralph E. s. Vallee, Bert L.* 2527.
- Thiessen, G.* Pulsierende Sterne. I. Überriensensystem BM Cassiopeiae. 1908.
- Thilo, Erich.* Glasartiger Zustand. 2075.
- Thirion, Jacques, Cohen, René and Whaling, Ward.* Magnetic analysis of the $\text{O}^{18}(\text{d}, \text{p})\text{O}^{19}$ and $\text{N}^{15}(\text{d}, \text{p})\text{N}^{16}$ reactions. 573.
- Thirring, W. s. Deser, S.* 396.
- , *Walter.* Divergence of perturbation theory for quantized fields. 5.
- Einführung in die Quantenelektrodynamik. 182.
- Wechselwirkung niederenergetischer π -mesonen. 539.
- Renormalisation der Meson-Paartheorie. 722.
- Thirup, G.* Design of low-pass amplifiers for fast transients. 1452.
- Thode, H. G. s. Blades, A. T.* 954.
- s. *Fleming, W. H.* 38.
- s. *Wanless, R. K.* 2370.
- Thoma, Hans Ulrich s. Baumgartner, Willy.* 1215.
- Thomaes, G.* Thermodiffusion en phase condensée Nouveau dispositif ex-

- périmental pour la mesure du coefficient de Soret. 1828.
- Thomaes, G. s. Jenner, J.* 111.
- Thomas, Alexander.* How to compare counters. 1975.
- , *B. W. s. Martin, R. L.* 1679.
- , *D. A. and Robinson, D. W.* Dynamic mechanical properties of polyisobutylene over a wide temperature range. 1202.
- , *G. E. s. Bollinger, L. M.* 957, 1564.
- , *G. E. jr. s. Muehlhause, C. C.* 936, 1980.
- , *Henry C. s. Gaines, George L. jr.* 2331.
- , *J. A. and McNicol, R. W. E.* Automatic recording of the direction of arrival of radio waves reflected from the ionosphere. 521.
- , *Svebnson, A. C.* Lunar tide in sporadic E at Brisbane. 2574.
- , *J. E. jr. and Rediker, R. H.* Effect of electric field on surface recombination velocity in germanium. 1652.
- , *Jerome F. and Branch, Gerald.* Principal electronic absorption bands of the vinyllogous series derived from benzylaldehyde and benzophenone. 2413.
- , *J. O. s. Ratcliffe, J. A.* 1285.
- , *s. Schmerling, E. R.* 1285.
- , *Karl.* Gesetzliche Regelung der Verwendung von Radioisotopen fehlt. 2344.
- , *L. R.* Microwave as applied to railroad operation in the gulf coast area. 485.
- , *P. A. V.* Synchronizing circuit for variable input voltages. 642.
- , *R. G.* Correction to the exponential dependence of neutron transmissions. 978.
- , Collision matrix for (n, d) and (p, d) reactions. 1772.
- , *Walt, M., Walton, R. B. and Allen, R. C.* Spin dependence of the s-wave neutron interaction with Li^7 . 2391.
- , *s. Lane, A. M.* 945.
- , *Virginia G. s. Crowe, R. W.* 144.
- , *W. R. and Leak, G. M.* Binding energy of nitrogen in a dislocation. 867.
- Thomer, Gustav s. Schall, Rudi.* 371.
- Thompson, A. R. s. Brown, R. Hanbury.* 174.
- , *B. W.* Fast-neutron scintillation survey meter. 758.
- Thompson, Boyd W.* Portable survey meter for fast and slow neutrons. 224.
- , *Dudley and Sutherland, D. G.* Ultrasonic insonation effect on liquid-solid extraction. 2306.
- , *G. H. B.* Unusual waveguide characteristics associated with the apparent negative permeability obtainable in ferrites. 1450.
- , *H. W. s. Glusker, D. L.* 433.
- , *s. Overend, J.* 624, 1402.
- , *s. Russell, R. A.* 1403.
- , *J. A. L. s. Mann, K. G.* 556.
- , *J. C. and Squire, C. F.* Magnetization of tin at the superconducting transition. 469.
- , *L. J. s. Long, F. A.* 1633.
- , *N., Coogan, C. K. and Rider, J. G.* Experiments on aluminium crystals subjected to slowly alternating stresses. 1503.
- , *N. A. C. s. Barlow, H. M.* 1227.
- , *s. Ross, I. M.* 1227.
- , *Ross D. F. s. Schultz, Cramer.* 1886.
- , *R. W., Burwell, J. R., Cohn, H. O., Huggett, R. W. and Karzmark, C. J.* Magnetic cloud chamber observations of V° particles. II. Status of work on the Θ° meson. 43.
- , *Huggett, R. W. and Karzmark, C. J.* Evidence for double production of V° particles. 43.
- , *s. Amaldi, E.* 235.
- , *s. Burwell, J. R.* 939, 1335.
- , *s. Kim, Y. B.* 43, 394, 938, 1520.
- , *S. G. s. Asaro, Frank.* 968.
- , *s. Crane, W. W. T.* 56.
- , *s. Ghiorso, A.* 1322.
- , *s. Hoff, R. W.* 78.
- , *W. B.* Acceleration of cosmic-ray particles by magneto-hydrodynamic waves. 777.
- Thomsen, John S.* Logical relations among the principles of statistical mechanics and thermodynamics. 1510.
- Thomson, B.* Embrittlement of tungsten wire. 2516.
- , *J.* Developments in thermionic devices since 1939. 1490.
- , *Robb M. and Bergmann, Peter G.* Spin and statistics of a general-relativistic Dirac field. 363.
- , *S. J. s. Paneth, F. A.* 2233.
- Thonemann, P. C. s. McNeill, K. G.* 1985.
- Thoreaus, R., Oosterkamp, W. J., Proper, J., Jaeger, R., Rajewsky, B., Bunde, E.,*

- Dorneich, M., Lang, D. und Sewkor, A.* Vergleichsmessungen des internationalen röntgen im Bereich von 8 kV bis 170 kV Erzeugungsspannung. 1693.
- Thorn, Robert J. s. Rauh, Everett G.* 1511.
- Thornburg, Wayne.* Reflecting objective for microspectroscopy. 1460.
- Thorndike, A. M. s. Block, M. M.* 938, 1753.
- *s. Eisberg, L. M.* 979.
- *s. Fowler, W. B.* 45, 1131.
- *s. Morris, T. W.* 1375.
- *N. S. s. Telford, J. W.* 2217.
- Thorne, C. J. s. Deverall, L. I.* 1311.
- *Charles J. s. Barker, Roland S.* 99.
- Thornton, C. G. and Hanley, L. D.* High temperature silicon diode. 2137.
- *Robert L. s. Pyle, Robert V.* 1752.
- *W. A.* Electroluminescence in zinc sulfide. 1889.
- Thorp, J. S.* X-ray method for studying radial current distributions in electron beams. 852.
- *s. Bright, A. W.* 2488.
- Thouless, D. J.* Energy levels of π -mesic atoms. 1529.
- Thrasher, L. W. and Binder, R. C.* Effect of edge thickness on small orifice meters. 1308.
- Thrush, B. A.* Homogeneity of explosions initiated by flash photolysis. 552.
- *s. Lipscomb, F. J.* 861.
- Thulin, A.* Photoelectric light-spot-displacement detector. 193.
- Thuillier, Germaine, Cheutin, Andrée et Daudel, Pascaline.* Semimicrosynthèse de l'acide salicylique marqué par du radiocarbonate-14 sur le groupement carboxyle. 552.
- Thurmond, C. D. s. Hession, F. X.* 2316.
- Thurn, H. and Würstling, F.* Temperaturverschiebung der dielektrischen Verlustfaktormaxima von Hochpolymeren mit der Frequenz. 2084.
- Thury, W. and Landerl, H.* Korngrenzenätzung von Aluminium und Aluminium-Legierungen. 2542.
- Thwaites, J. E.* Quartz vibrators for audio frequencies. 275.
- Tice, G. s. Benedict, F. D.* 1569.
- Ticho, Harold K. s. Barkas, Walter H.* 1748.
- *s. Freden, Stanley C.* 1338.
- Tidman, D. A.* Quantum theory of refractive index, Cerenkov radiation and ionization loss. 1374.
- *s. Chartres, B. A.* 930.
- Tidwell, Eugene D. s. Plyler, Earle K.* 2409, 2523.
- *Marvin, Haynes, S. K. and Wang, P. K. S.* Energy spectrum of a low-voltage X-ray tube. 684.
- *s. Wang, P. K. S.* 684.
- Tiedema, T. J. and Burgers, W. G.* Precipitation in lead-tin alloys. 1269.
- Tietz, T.* Approximate analytic solution of the Thomas-Fermi equation for atoms. 722.
- Approximation der Fermischen Verteilungsfunktion für positive freie Ionen. 722.
- Solution of the Schrödinger equation for an approximate atomic field. 2264.
- Approximation der FERMI'schen Verteilungsfunktion. 2264.
- Tigaud, J. s. Viallier, J.* 1478.
- Tikson, Michael.* Tabulation of an integral arising in the theory of cooperative phenomena. 495.
- Tilden, Elizabeth F. s. Bozorth, R. M.* 2456.
- Till, J. E. s. Johns, H. E.* 1173.
- Tillett, J. P. A.* Fracture of glass by spherical indenters. 1899.
- Timbrell, V.* Terminal velocity and size of airborne dust particles. 2094.
- Timm, U. s. Dähnck, W.* 934.
- Berechnung elektrostatischer Linsen. 498.
- Tinma, D. L. s. Charles, G. W.* 620.
- Timmerhaus, K. D. Giller, E. B. Duffield, R. B. and Drickamer, H. G.* Scintillation conducting rods in tracer work. 227.
- Timmermans, J.* Diagnostic des antipodes correspondants. 788.
- Tinmins, E. W. s. Rose, F. W. G.* 287.
- Timoschin, Ju. W. s. Sawjalow, W. D.* 1086.
- Ting, Yu Farringer, L. D. and Williams, Dudley.* Paramagnetic resonance absorption in chromic chloride. 1846.
- *Manring, R. and Williams, Dudley.* Zeeman effects in the chlorine nuclear quadrupole resonance in sodium chloride. 1423.
- Tinkham, M.* Magnetic resonance demonstration of charge transfer in iron group fluorides. 1644.
- Cyclotron resonance in bismuth. 1654.
- *and Strandberg, M. W. P.* Theory of the fine structure of the molecular oxygen ground state. 1621.

- Tinkham, M. and Stradberg, M. W. P.* Interaction of molecular oxygen with a magnetic field. 1621.
- — Line breadths in the microwave magnetic resonance spectrum of oxygen. 1817.
- — Excitation of circular polarization in microwave cavities. 2180.
- Tinlot, John s. Baskir, Emanuel.* 418.
- Tiomno, J.* Mass reversal and the universal interaction. 721.
- s. *Bohm, D.* 898.
- Tipnis, C. B. s. Parthasarathy, S.* 741.
- — 1108.
- — 1956.
- Tirouflet, J., Robin, R. et Guyard, Mme M.* Polariographie des dérivés aromatiques et interactions intramoléculaires. 11-phtalimides substitués dans le cycle et phtalimides N-substitués. 1440.
- , *Jean.* Polarographie des dérivés aromatiques et interactions intramoléculaires. I. Dérivés nitrés. Application de l'équation de Hammett en potentiel de demi-vague. 1440.
- Tischer, Friedrich J.* Effektive Bandbreite von Video-Verstärkern. 488.
- Verstärkung und Bandbreite von Video-Verstärkern. 488.
- Fortleitungs- und Anpassungstheorie homogen geführter Wellen. 1246.
- Wesensverwandtschaft und die Beziehungen zwischen Amplituden- und Phasenverzerrungen in Videoverstärkern. 1453.
- Elastische Impulsmodulation. 2511.
- , *Ragnar P. s. Jaenicke, Walter.* 296.
- Tishjar-Lentulis, Georg und Weinzierl, Peter.* Methode zur Messung extremer Intensitätsrelationen zwischen positiven und negativen Elektronen. 2382.
- Tisza, Laszlo s. Manning, Irvin.* 32.
- Tits, Jacques.* Espaces homogènes et isotropes, et espaces doublement homogènes. 1091.
- Tittel, J.* Generatoren. 1291.
- Titterton, E. W.* Nuclear power production and utilisation. I. Fission and its potentialities as a power source. II. Release of energy in reactions. III. Short-term programme for atomic power. 1128.
- Slow-neutron ternary fission of iridium-235. 2020.
- Titterton, E. W. and Brinkley, T. A.* Binary and ternary photofission of thorium. 232, 2020.
- s. *Carver, J. H.* 768.
- s. *Scott, J. M. C.* 2003.
- Titz, Ilse, Raidl, Franz und Krainer, Helmut.* Stabilisierungsvorgänge an Dauermagneten. 1017.
- Tobailem, J. s. Bouchez, R.* 2006.
- , *Jacques.* Mesure de la période du RaD. 238.
- et *Robert, Jean.* Période du ²⁰⁴Tl. 2371.
- Tobey, A. R.* Chronology of modern physics. 1919.
- Tobin, Marvin C.* Kinetic method for some second-order reactions. 1744.
- , *Ralph s. Birnbaum, Milton.* 40.
- , *R. A. s. Bendel, W. L.* 2013.
- Tobocman, W. and Kalos, M. H.* Numerical calculation of (d, p) angular distributions. 53.
- — Numerical calculation of the stripping angular distribution. 85.
- s. *Cooper, L. N.* 603.
- s. *Utiyama, R.* 899.
- Tobolsky, A. V. and McLoughlin, J. R.* Viscoelastic properties of crystalline polymers: polytrifluorochloroethylene. 2439.
- , *Arthur V.* Stress relaxation, birefringence and the structure of gelatin and other polymeric gels. 1636.
- Tochilin, E. and Golden, R.* Film measurement of beta-ray depth dose. 1478.
- Toda, Morikazu.* Relation between fermions and bosons. 2270.
- Diffusion on the Fermi-surface and the conductivity of metals. 2465.
- Todd, John.* Motivation for working in numerical analysis. 184.
- Tödt, F. und Meyer, W.* Potentiale am platiniierten Platin bei kathodischer Beladung unter besonderer Berücksichtigung der reversiblen Wasserstoffelektrode. 139.
- , *Fritz.* Grenzen der elektrochemischen Untersuchung von Korrosionsvorgängen und Sauerstoffgehalten. 871.
- Toeldte, W.* Klebeverbindungen. 1273.
- Török, C. s. Zocher, H.* 1061.
- Tokunaga, Senzo, Yuasa, Kazunori, Nishikawa, Kiyoshi und Isii, Taka.* Energy spectra of charged π -mesons produced in carbon, aluminium and copper at 90° to a 345 MeV proton beam. 1136.

- Tokuoka, Zensuke.* Equivalence of the particle formalism and the wave formalism of meson. II. Case of interacting meon and nucleon fields. 2271.
- Tolansky, S. and Emara, Sayeda H.* Occasional mode of growth in diamond. 106.
- and *Williams, Anne P.* Directional hardness studies on single crystals of tin and bismuth. 14.
- *s. Howes, V. R.* 106.
- Tolhoek, H. A.* Theory of the directional distribution and the polarization of beta and gamma rays emitted by orientated nuclei. 2030.
- and *Cox, J. A. M.* Angular distribution and polarization of gamma radiation emitted by aligned radioactive nuclei. 2033.
- *Hartogh, Chr. D. et Groot, S. R. de.* Distribution angulaire des rayonnements émis par des noyaux orientés: L'influence de la précession des spins nucléaires dans les états intermédiaires, après une capture K. 1140.
- *s. Cox, J. A. M.* 236, 2033.
- *s. Groot, S. R. de.* 829.
- *s. Lipps, F. W.* 246.
- *s. Wheatley, J. C.* 2358.
- *Tollenaar, D.* Rise of liquids into a wedge-shaped crevice. 268.
- Exchange of liquid between paper pores. 268.
- and *Bisschop, M. C.* Bar viscometer. 1504.
- Toller, A. L., Newson, H. W. and Merzbacher, E.* Neutron resonances in the kilovolt region: Na^{23} and Al^{27} . 1562.
- *Patterson, J. R. and Newson, H. W.* Neutron resonances in the kilovolt region: Cl^{35} , Cl^{37} , K^{39} and K^{41} . 1554.
- Tollert, Hans.* Strömungsdiffusions-Effekt. III. Theorie des Strömungsdiffusions-Effektes. 1009.
- Tollestrup, A. V., Keck, J. C. and Smythe II, W. R.* High-energy photodisintegration of the deuteron. Procedure. 575.
- and *Worlock, R. M.* Photoproduction of positive pions in hydrogen-counter telescope method. 1522.
- *s. Bingham, H. H.* 1342.
- *s. Keck, J. C.* 575, 1543.
- *s. Walker, R. L.* 941.
- *s. Watson, K. M.* 2354.
- Tolmon, F. R. and Wood, Jill G.* Fringe spacing in interference microscopes. 1881.
- Toman, L. s. Wolff, G.* 912.
- Tomaschek, R.* Tidal gravity measurements in the Shetlands: Effect of the total eclipse of June 30, 1954. 1283.
- Serpent spring. 1312.
- Tomasini, G. s. Bonetti, A.* 2352.
- *s. Corato, M. di.* 2367.
- *s. Davies, J. H.* 763.
- Tomaskova, Lenka.* Star disintegration in the emulsions of nuclear plates. 1801.
- Tomberg, V.* Methode der Messung sehr kleiner Mengen von CO in Luft, Blut und Lunge. 2275.
- Tombouliau, D. H.* 1955 Fall Meeting of the New York state section held at Clarkson College of Technology, Potsdam, New York, October 7 and 8, 1955. 1707.
- *s. Bedo, D. E.* 1397, 1464, 1883.
- *s. Prague, G.* 1679.
- Tombs, D. M.* Corona wind loud-speaker. 1658.
- Tomiser, Josef.* Eigendruckverbreiterung der Kaliumlinien 7664,91 ÅE und 7698,98 ÅE und ihrer Zeemankomponenten in Absorption. 1614.
- Tomishima, Yasuo s. Umeda, Kwai.* 103.
- Tomita, K.* Rotational transition in solid hydrogen. 1405.
- , *Kazuhiisa and Fukui, Kiyoshi.* Electronic structure of LiH atomic orbital approach with configurational interaction. 2407.
- and *Mannari, Isao.* State of solid hydrogen. 2314.
- Tomkins, F. S. s. Frody, J. K.* 430.
- Tomlin, S. G. s. Worthington, C. R.* 171.
- Tomlinson, E. P. and Naumann, R. A.* Decay of Pt^{191} . 1159.
- , *R. C. s. Holdsworth, J. F.* 2190.
- , *T. B.* Space charge reduction of low frequency fluctuations in thermionic emitters. 1052.
- Tomnovec, F. M. and Cook, C. S.* 5.3-Mev energy level in Mg^{24} following the decay of Na^{24} . 1366.
- Tomono, Masami.* Direct current characteristics of the selenium rectifier. I. Theory of rectification. 294.
- , *Yuzo.* Magnetic after effect of cold rolled iron. I. II. 2544.
- Tompa, H.* Sensitive manostat. 1934.

- Tompkins, Edward R. Application of ion exchange to the separation of substances in low concentrations. 407.
- , F. C. and Young, D. A. Photochemical and thermal formation of colour centres in potassium azide crystals. 2424.
- s. Eggleton, A. E. J. 2090.
- Tompsett, D. H. s. Young, J. B. 1663.
- Toms, M. E. s. Bendel, W. L. 2013.
- , M. Elaine and Stephens, William E. Photoprotons from cobalt. 768.
- — Photoprotons from lead-208 and tantalum. 953.
- Tomura, Masao and Abiko, Yukiaki. Magneto effect in germanium point contacts. 2475.
- — Non-uniform natures of the selenium rectifier. 2479.
- — Electron multiplication in hard flows of selenium rectifiers. 2479.
- and Kikuchi, Takeo. Electronic mobilities in diamond at high electrostatic fields. 2475.
- and Otsuka, Eizo. Shift of band edge of germanium with temperature. 2117.
- Tonquist, G. Sample holder for reflection measurements with the Beckman model DU spectrophotometer. 2522.
- Toplak, H. s. Schuru, J. 2413.
- Toppel, B. J., Wilkinson, D. H. and Alburger, D. E. 2-state at 8.85 Mev. in O^{16} . 1364.
- — — Inelastic scattering of protons from F^{19} . 1366.
- s. Wilkinson, D. H. 1571.
- Toribara, T. Y. Beam-condensing system for Beckman IR-2 infrared spectrophotometer. 685.
- Torikai, Yasuo. Transmission of ultrasonic waves through a plane plate made of viscoelastic material immersed in a liquid medium. 2306.
- and Negishi, Katsuo. Application of the phase method in visualizing ultrasonic waves. 2306.
- Toriyama, Y. s. Sugita, K. 805.
- , Yotsuo s. Satō, Tadashi. 2548.
- Torizuka, Yoshiharu, Kojima, Yuzo and Fujimura, Tadao. g-factor and H_i of nickel ferrite-aluminate. 1019.
- Torkar, Karl und Götz, Helmut. Magnetische Analyse von Kupfer-Nickel-Sinterkörpern. 1075.
- Torres, R. Segovia s. Celma, M. 756.
- Torrey, H. C. s. Segleken, W. G. 2459.
- Tosi, C. s. Prosperi, G. M. 722.
- Tourky, A. Riad, Khairy, E. M. et Hussein, M. Kamal. Nature du film de passivation de l'aluminium, d'après l'étude du comportement d'une électrode de ce métal et d'après l'étude de la polarisation anodique. 1864.
- , Riad et Khairy, E. M. Electrochimie de l'électrode de thallium. 1864.
- Touschek, B. F. Estimate for the position of the lowest dipole-level of a nucleus. 2029.
- s. Burton, W. K. 1925.
- s. Morpurgo, G. 718.
- Tove, P.-A. s. Tyrén, H. 1546.
- Towle, J. H. s. Bunbury, D. St. P. 1150.
- s. Devons, S. 1150, 1984.
- Townes, C. H. s. Autler, S. H. 1621.
- s. Dousmanis, G. C. 1621.
- s. Gordon, J. P. 1450.
- s. Honig, A. 785.
- s. Schawlow, A. L. 2047.
- s. White, R. L. 435.
- Townsend, A. A. Fine-scale structure of turbulence. 1947.
- , J. s. Weissman, S. I. 122.
- Towsley, F. E. s. Stull, D. R. 23.
- Toyoda, Toshiyuki. Recoil effects in the strong coupling theory. 2269.
- , Yoshio s. Miura, Isao. 2400.
- Toyozawa, Yutaka, Inui, Teturo and Uemura, Yasutada. Interaction of additive electrons with the polarization in ionic crystals. II. 1406.
- s. Kubo, Ryogo. 798, 1892.
- Tränckler-Greese, Ruth s. Hauffe, Karl. 1033.
- Trageser, Milton B. Null method polarimeter. 2194.
- Trail, C. C. and Johnson, C. H. $Li^7(d, n)$ Be^8 neutron spectrum and differential cross section. 958.
- Trainor, L. E. H. Phenomenological many-body exchange forces. 2005.
- and Brown, S. B. X-ray spectrum of a 70 mev synchrotron. 1328.
- and Dixon, W. R. Possibility of a nuclear change of phase. 592.
- Trambarulo, Ralph and Moser, Paul M. Microwave spectrum of formic acid. 998.
- Tranter, T. C. Unit-cell dimensions and space groups of synthetic peptides. II. Glycyl-L-alanine, glycyl-L-alanine hydrochloride, glycyl-L-alanine hydrobromide and glycyl-L-tryptophane. 105.

- Tranter, T. C.* Unit-cell dimensions and space groups of synthetic peptides. I. Glycyl-L-tyrosine glycyl-L-tyrosine hydrochloride, glycyl-DL-serine and glycyl-DL-leucine. 1076.
- Trapesnikowa, S. A. s. Gorbatschewa, N. A.* 1892.
- Trapnell, B. M. W. s. Grimley, T. B.* 1272.
- Trapp, Wolfgang.* Dielektrisches Verhalten von Holz und Zellulose in weitem Frequenz- und Temperaturbereich. 1271.
- Trau, E. s. Goodman, D. H.* 486.
- Trauger, D. B.* Cutting tool for alkali metals. 12.
- Trautmann, Mlle S.* Élektrostriction et ultrafiltration. 725.
- , *Mlle Simone et Ambard, Léon.* Activité des ions. 1864.
- Traving, G. s. Hunger, K.* 2233.
- Traynard, Ph. s. Charuel, R.* 23.
- Treacy, P. B. s. Riviere, A. C.* 1973.
- Treanor, Charles E.* Isotope shift in neutral oxygen. 97.
- , *P. J.* Interference photography of the chromospheric spectrum. 2560.
- Trebst, Achim s. Weygand, Friedrich.* 2551.
- Tredgold, R. H.* Anharmonicity and monomolecular reactions. 552.
- *s. Ayres, R. U.* 1405.
- *s. Evans, J. S.* 1300.
- Trees, R. E.* Polarization energy for 3d and 4p electrons. 95.
- , *Richard E., Cahill, W. F. and Rabino-*
witz, P. Computation of atomic energy levels: Spectrum of singly-ionized tantalum (Ta II). 2403.
- Trefall, H.* Positive temperature effect in the cosmic radiation. 616.
- Positive temperature effect in the cosmic radiation and the μ -e decay. 617.
- Barometer effect on the hard component of the cosmic radiation. 617.
- *s. Trumpy, B.* 2047.
- Trehan, S. K. s. Majumdar, R. C.* 900.
- Treiber, E. s. Schuru, J.* 2413.
- Treiman, S. B.* Radiative decay of the Θ^0 particle. 45.
- Method for determining spins of hyperons. 2351.
- and *Blume, M.* Galactic r-f radiation and cosmic-ray electrons. 1083.
- and *Wyld, H. W. jr.* Gamma stability of K-mesons. 1338.
- Treiman, Reynolds, Geo. T. and Hodson, A. L.* Angular correlation effects in unstable particle decay. 561.
- *s. Arnold, W. H.* 403, 938.
- *s. Ballam, J.* 938.
- *s. Hodson, A. L.* 395.
- *s. Lint, V. A. J. van.* 1133.
- *s. Sachs, R. G.* 1990.
- Treloar, L. R. G.* Photoelastic properties of short-chain molecular networks. 1634.
- Trembley, Jacques s. Crussard, Jean.* 393.
- , *J. s. Hoang, T. F.* 1136.
- Trenam, R. S. s. Bleaney, B.* 2108.
- Trentini, G. v.* Reflex- und Leitscheiben-Antennen für Dezimeterwellen. 1671.
- Treon, R. s. Morton, P. H.* 1101.
- Treschschew, I. I.* Allgemeine Theorie der elektrischen Welle. 2505.
- Tress, H. J.* Distinctive contours worn on alumina-silica refractory faces by different molten glasses: Surface tension and the mechanism of refractory attack. 2428.
- Treupel, Hans s. Thees, Richard.* 1098.
- Treusein, Edgar.* Zeitsignalgeber des Deutschen Hydrographischen Instituts. 2560.
- Tribus, M. s. Chin, J. H.* 2085, 2086.
- Triebwasser, S.* Behavior of ferroelectric KNbO_3 in the vicinity of the cubic-tetragonal transition. 2496.
- and *Halpern, J.* Curie constant, spontaneous polarization and latent heat in the ferroelectric transition in KNbO_3 . 1239.
- , *Sol and Holtzberg, Frederic.* Ferroelectric behaviour of solid solutions of KNbO_3 and KTaO_3 . 1239.
- Trier, Jost Otto s. Kopfermann, Hans.* 994.
- , *Wolfgang.* Temperatur- und Spannungsverhältnisse beim Absprengen von Glas. 2547.
- Trifonow, A. und Elenkova, N.* Polarographische Untersuchung des Arsen-(III)-Komplexes mit der Weinsäure. 2485.
- Trillat, J.-J. et Barbezat, S.* Étude par rayons X de l'action de l'acide oleique sur le plomb. 752.
- *s. Barbezat, S.* 2327.
- Trilling, G. H. and Leighton, R. B.* Cloud-chamber investigation of charged V particles. 1997.
- *s. Sorrels, J. D.* 1998.

- Trimmer, J. D. and Jordan, W. H. Instrumentation and control of reactors. 1988.
- Tripp, R. High-energy polarized proton beam. 1376.
- , Wiegand, C., Ypsilantis, T., Chamberlain, O. and Segrè, E. Experimental determination of the complete scattering matrix in a proton carbon collision. 973.
- s. Chamberlain, O. 85.
- s. Ypsilantis, T. 976.
- , Robert D. Polarization of the deuteron in the reaction $p + p \rightarrow \pi^+ + d$. 2390.
- , Verne W. and Giuffria, Ruth. Electron microscopy of limited swelling in cotton. 1839.
- , W. s. Behr, A. 351.
- Trischka, J. W. Internuclear distance and dipole moment of the LiF molecule. 2406.
- s. Braunstein, R. 998.
- Trivero, G. s. Demichelis, F. 1367.
- s. Ricci, R. A. 402.
- , Giacomo s. Ricci, Renato. 1149.
- Trlifaj, Ladislav. Static model of the nucleon. 947.
- Slowing down and diffusion of neutrons in finite media according to elementary diffusion theory. 1382.
- , Miroslav. Thermal and non-radiative transitions of electrons at imperfections in ionic crystals. 1216.
- Trobisch, K. s. Schwabe, K. 1230.
- Trocheris, M. Règle de sélection possible pour certaines désintégrations β . 2031.
- , Michel. Modèle collectif et ses applications aux noyaux lourds. 1137.
- Trolan, J. K., Barbour, J. P., Martin, E. E. and Dyke, W. P. Emission from the single lattice step of clean tungsten. 1052.
- Trolese, L. G. Characteristics of tropospheric scattered fields. 2508.
- Troltenier, Uwe s. Micus, Gerhard. 107.
- Trombe, Félix. Utilisation de l'énergie solaire. Etat actuel et perspectives d'avenir. 2274.
- Alimentation en eau des terres arides. (Mise au point schématique.) 2584.
- et Faër, Marc. Conductibilité électrique du système zinc-oreux à haute température. 474.
- Trost, A. Einfluß der geometrischen Größen und der Zeitkonstanten auf die Genauigkeit von Röntgeninterferenzmessungen mit einem Zählrohr-Goniometer. 1192.
- Trotman-Dickenson, A. F. s. Pritchard, H. O. 1186.
- Trotter, D. E. s. Roberts, W. O. 707.
- , Dorothy E. et Pecker, Charlotte. Phase du cycle solaire actuel. 1696.
- Trousil, Zdeněk. Thermal acceptors in germanium. 1857.
- Trout, T. s. Page, L. A. 1129.
- Trucker, D. E. s. Jones, R. Norman. 1617.
- True, Tom T., Singh, Nand Lal and Straley, Joseph W. Infrared intensity measurements in halogenated methanes. 624.
- , W. W. Shell theory and collective theory for the Pb isotopes. 2378.
- Trueblood, Kenneth N. s. Corey, Robert B. 2067.
- s. Donohue, Jerry. 1005.
- Truell, Rohn. Ultrasonic attenuation measurements for study of the engineering properties of materials. 2541.
- Truesdale, G. A. and Downing, A. L. Solubility of oxygen in water. 216.
- Truitt, Robert Wesley. Determination of the transonic pressure drag on wedges by the throat station method. 915.
- Trumbore, F. A. s. Hassion, F. X. 2316.
- Trump, J. G. s. Aarset, B. 1591.
- Trumpy, B. Time variations of cosmic ray intensity associated with geomagnetic and solar activity. 2047.
- and Trefall, H. Correlation between the cosmic ray intensity and the meteorological conditions. 2047.
- s. Gibson, W. M. 2017.
- , Georg. Circular polarization of gamma-rays following polarized neutron capture. 1162.
- Tscherepanow, W. I. s. Ssokolow, A. W. 190.
- Tscherepnjow, A. A. Disperser Zustand des Aktivators im Luminophor. 1893.
- Aktivierung von Zinksulfid-Leuchtstoffen durch Kupfer. 1893.
- Tschernow, A. A. s. Bondarenko, W. W. 280.
- Tschiegg, Carroll and Greenspan, Martin. Accurate time-modulated pulse circuit. 487.
- Tsien, H. S. Influence of flame front on the flow field. 1512.
- Thermodynamic properties of gas at high temperatures and pressures. 2330.

- Tsivoglou, E. C., Ayer, H. E. and Holdaday, D. A.* Occurrence of nonequilibrium atmospheric mixtures of radon and its daughters. 2576.
- Tsубои, Masamichi s. Mizushima, San-Ichiro.* 784, 2410.
- Tsuchida, Ryutarō s. Nakamoto, Kazuo.* 2062.
- *s. Yamada, Shoichiro.* 1194.
- Tsuda, Yoshizo s. Mizushima, San-Ichiro.* 784.
- Tsuji, Hiroshi.* Experimental studies on the characteristics of isotropic turbulence behind two grids. 1730.
- Tsukizoe, Tadasu s. Yoshimoto, Gennosuke.* 1313.
- Tsutsumi, Kenjiro s. Sawada, Masao.* 780, 1205.
- *s. Sawada, Masao.* 1804.
- Tsuya, Noboru s. Hirone, Tokutaro.* 118.
- Tubbs, Eldred F. s. Kerr, Donald E.* 837.
- Tucker, C. W. jr. and Senio, P.* X-ray scattering effects in irradiated boron carbide. 1176.
- *D. G.* Signal/noise performance of multiplier (or correlation) and addition (or integrating) types of detector. 153.
- Intermodulation distortion in rectifier modulators. 2511.
- *Edmund B., Johnston, Lawrence H. and Young, Donald E.* 200 Mc phase detector. 1519.
- *R s. Bertele, H. von* 1873.
- Tuddenham, William J., Hale, John and Pendergrass, Eugene P.* Supervoltage diagnostic roentgenography. 2558.
- Tufts, Barbara J. s. Lodge, James P.* 1637.
- Tukizi, Osamu.* Frequency of the scintillation fading of microwaves. 2510.
- Tullot, I. Font.* Meteorologische Faktoren für die Flugsicherheit. I. Eis. 1106.
- Tung, L. H. s. Emery, A. H.* 1201.
- Tuominen, Jaakko.* Latitude drift of sunspot groups. 175.
- Turberfield, K. C. s. Collington, D. J.* 1529.
- Turkdogan, E. T. and Leake, L. E.* Oxygen detector. 1936.
- *s. Leake, L. E.* 1314.
- Turkevich, Anthony s. Reed, George W.* 1697.
- *John s. Larach, Simon.* 1263.
- Turnbull, A. G. s. Appleton, Sir Edward.* 2572.
- *D. T. s. Littlefield, T. A.* 1610.
- *T. P.* Instrumentation for the Philips EM 100 electron microscope. 1259.
- Turner, A. F. s. Hass, Georg.* 2520.
- *C. H. M.* Concept of an instantaneous power spectrum, and its relationship to the autocorrelation function. 2335.
- *E. B.* Radiation from a strong shock front in krypton. 376.
- *J. F.* Internal conversion electron spectrum of ^{421}Am . 241.
- *J. S. s. Morton, B. R.* 736.
- *L. B.* Two electronic resistance or conductance meters. 1638.
- *O. H.* Reaction $^{23}\text{Na}(p, \gamma) ^{24}\text{Mg}$ and the energy levels of ^{24}Mg . 1359.
- *T. E., Fiora, Verna C., Kendrick, W. M. and Hicks, B. L.* Analysis of the microwave spectrum of ethylenimine. 434.
- *s. Hicks, B. L.* 434.
- Turski, Werner.* Unterschiede und Gemeinsamkeiten bei den Gesetzmäßigkeiten in Natur und Gesellschaft. 1489.
- Tuve, Merle A., Tatel, Howard E. and Hart, Pembroke J.* Crystal structure from seismic exploration. 518.
- *s. Tatel, Howard E.* 532.
- Tuyl, Harold H. van s. Lefebvre, Harlan W.* 2032.
- Tweet, A. G.* Grain boundary conduction in gold-doped Ge. 1028.
- Precipitation of Cu in plastically deformed germanium. 1433.
- *s. Gallagher, C. J.* 1220.
- Turiddy, N. D. s. Boyd, R. L. F.* 695.
- Twisleton, J. R. G.* X-band magnetron Q-measuring apparatus. 1673.
- Twiss, R. Q.* Initial space charge distribution in a cylindrical magnetron diode. 1058.
- Pre-oscillation state in a cylindrical magnetron. 1250.
- Oscillations in electron streams. 1443.
- *S. B. s. Teague, D. M.* 2210.
- Twist, D. R. and Baughan, E. C.* Vapour pressures and densities of solutions of glycol mononitrate in acetone at 20°C . 1099.
- Tye, R. P. s. Brown, A. R. G.* 1856.
- Tykodi, R. J. s. Aston, J. G.* 2330.
- Tyler, W. W. and Newman, R.* Hall mobility of optically excited carriers in germanium. 2472.

- Tyler, W. W. and Woodbury, H. H. Properties of germanium doped with iron. I. Electrical conductivity. 822.
- — Scattering of carriers from doubly charged impurity sites in germanium. 1433.
- s. Newman, R. 822, 2123.
- s. Woodbury, H. H. 1433, 2122, 2474.
- Tyrell, H. V. s. Mara, R. T. 1826.
- Tyrén, H. and Tove, P.-A. Short-lived radionuclides produced by a synchro-cyclotron. 1546.
- s. Lovati, A. 1980.
- Tyzack, C. and Raynor, G. V. X-ray examination of the indium-rich alloys of the systems indium + lead and indium + mercury. 868.
- Tzara, C. s. Laboulaye, H. de 2018.
- U
- Ubbelohde, A. R. s. Harpur, W. W. 1037, 1435.
- s. Plester, D. W. 1741.
- s. Pollock, J. McC. 2055.
- Ubisch, H. von. Transfer of movement into a vacuum by means of twisting a copper tube. 1722.
- s. Lodding, Alex. 1349.
- Uchida, Enji. Magnetic properties of cobalt telluride. 1422.
- and Kondoh, Hisamoto. Magnetic properties of FeTe. 1422.
- , Yôichi and Yagi, Hisao. Absorption of color-centers in the region between F-band and M-band. 2424.
- and Nakai, Yoshio. Injection of positive holes in the alkali halide crystal. 2476.
- Uchirin, George C. and Taylor, Wilfred O. Self-excited square-wave transistor power oscillator. 653.
- Udagawa, S. X-ray studies on thermal transformations in sericite. 798.
- Ude, Hans s. Freiwald, Heinz. 31, 925.
- Udgaonkar, B. M. s. Singwi, K. S. 443.
- Überall, H. Hyperfragment production. 1999.
- s. Dyson, F. J. 1799.
- , Herbert s. Sexl, Theodor. 2038.
- Übergang, R. G. s. Tanner, N. W. 240.
- Übersfeld, Jean s. Blanc, Daniel. 1974.
- Ueda, Midori. Absorption spectrum of nitric oxide in the far-ultraviolet region. 1818.
- , Rynzo s. Kobayashi, Jinzo. 1445.
- Uehling, Edwin A. Relative contributions of K-shell and other electrons to the stopping power of light and heavy elements. 82.
- Uémura, Taku et Miyakawa, Seinosuké. Etudes spectrochimiques des complexes métalliques du troponoïde. 1618.
- Uemura, Yasutada s. Toyozawa, Yutaka. 1406.
- Ueno, Yoshio and Takeno, Hyôitirô. Wave theory of light in general relativity. I. Path of light. 2264.
- Uesugi, Yahei s. Hirao, Kunio. 2509.
- Ueta, Masayasu. Bleaching of color centers (M-center) in KCl crystal with polarized light. 2424.
- and Känzig, Werner. Generation of electron traps by plastic flow in alkali halides. 447.
- s. Känzig, Werner. 822.
- Uffen, R. J. s. Knopoff, L. 884.
- Ufford, C. W. s. Meshkov, S. 1156, 1573.
- Uhler, Ulla. Blue band-system of niobium oxide. 255.
- Uhlir, A. jr. Micromachining with virtual electrodes. 195.
- Ui, Haruo. Formal theory of nuclear direct interaction in nuclear scattering. 2388.
- Ulbricht, Hans. Luftauftrieb bei Waagen mit elastischem Meßglied. 1304.
- , Richard 1849—1923. 2255.
- Ulehla, Ivan. Quantum mechanic of mesons with spin zero and one. 1095.
- Ulevitch, Irwin N. s. Maron, Samuel H. 2430.
- Ullman, Robert s. Frank, H. Peter. 1199.
- Ulrich, E. H. Twenty-five years of microwaves. 2504.
- , H. Widerstandsverhalten dünner aufgedampfter Metallschichten zwischen 0 und -135°C . 2090.
- Ulmer, K. Elektron-Elektronstreuung im Energiebereich von 200 bis 300 keV. 2039.
- und Ziegler, B. Messung eines 30 MeV Betatronbremsspektrums mit dem Compton-spektrometer. 935.
- Ulmo, J.-F. s. Fêvrot, C. 676.
- Ulick, J. C. s. Pfister, W. 180.
- Umeda, Kuai and Tomischima, Yasuo. Influence of the packing on the atom-formfactor based on the Thomas-Fermi theory. 103.

- Umezawa, H. and Kamefuchi, S. Vacuum in quantum electrodynamics. 2269.
- and Visconti, A. General theory of propagators. 188.
- , Podolanski, J. and Oneda, S. Commutation relations between different fields. 1094.
- , Takahashi, T. and Kamefuchi, S. Meson cloud around the nucleons. 2357.
- s. Yukawa, J. 2268.
- , Hiroomi s. Tanaka, Sho. 2268.
- , M. Pairing in shell models. 400.
- , Minoru. j-j coupling shell model. 2357.
- Umstätter, H. Schlußwort in der Auseinandersetzung Umstätter-Schwaben-Kochanowsky-Vogelpohl. 2077.
- Geräte zur viskosimetrischen Molekulargewichtsbestimmung. 2077.
- und Schwaben, R. Entgegnung zu Herrn W. Kochanowsky. 2077.
- , H. Viskosität-Temperatur (V.T.)-Verhalten von Schmierölen. 2286.
- Unangst, D. s. Elschner, B. 1417.
- Underhill, L. H. s. Hochberg, S. 83.
- Underwood, C. R and Houslip, R. C. Behaviour of humidity-sensitive capacitors at room temperatures. 553.
- , Newton s. Bavel, C. H. M. van. 1704.
- Unger, Hans-Georg. Dielektrische Rohre als Wellenleiter. 1246.
- Upson, U. L., Connally, R. E. and Leboeuf, M. B. Analyzing for low-energy gamma emitters in a radionuclide mixture. 2343.
- , Edward. Skew ray analysis of the classical Schmidt camera. 2200.
- Urbach, F. and Moser, F. Silver halide phosphors. 693.
- , Franz s. Moser, Frank. 1265.
- s. Nail, Nelson R. 1467.
- Urban, J. S. s. Howard, R. A. 43.
- , John S. and McClure, John J. Analysis of nuclear emulsion tracks by scattering measurements. 1748.
- , P. und Wildermuth, K. Konvergenz des Bornschen Näherungsverfahrens. 1583.
- s. Florian, A. 1530.
- s. Kassecker, T. 763.
- s. Ledinegg, E. 372, 814, 1248.
- s. Mitter, H. 1601.
- Urbanik, K. Asymptotic behaviour of the cosmic ray cascade for large depth of the absorber. 778.
- Urcelay, José Martí. Nomogramas de rotación y de traslación. Supresión de los transparentes especiales. 2262.
- Urey, Harold C. Origin and age of meteorites. 706.
- Origin of tektites. 1482.
- Cosmic abundances of potassium, uranium, and thorium and the heat balances of the earth, the moon, and Mars. 1696.
- Uri, N. s. Evans, M. G. 1010.
- Urnes, S. s. Flood, H. 140, 663.
- Ursell, F. Long-wave paradox in the theory of gravity waves. 1310.
- Utashiro, Shinkichi. Character of the micropulsation in the magnetic storm. 2569.
- s. Kato, Yoshio. 2569.
- Utiyama, R. and Tobocman, W. Conservation of parity and the new particles. 899.
- Uyeda, S. s. Nagata, T. 2240, 2570.
- Uyesugi, Yahei s. Fukushima, Madoka. 2509.
- Uzunov, I. s. Raev, A. 1250.

V

- Vacher, H. C. and Bechtoldt, C. J. Delta ferrite-austenite reactions and the formation of carbide, sigma, and chi phases in 18 chromium-8 nickel-3.5 molybdenum steels. 1690.
- s. Mitchell, J. A. 2546.
- Vago, C. et Busnel, M. C. Discrimination entre l'inactivation de la virulence et du développement bactériens par le rayonnement ultra-violet de 2537 Å. 705.
- Vajda, John and Hart, Donald P. Low temperature bath for constant temperature studies. 12.
- Valadares, Manuel s. Frilley, Marcel. 569, 1769.
- Valckx, F. P. G. s. Jongerius, H. M. 2363.
- s. Endt, P. M. 2012.
- s. Paris, C. H. 951.
- s. Veenstra, P. C. 1985.
- Valdrè, U. s. Brini, D. 425.
- Vale, W. R. F. s. Lambert, J. D. 16.
- Valencé, L. P. de. Instability of photo-multipliers. 1060.
- Valensi, G. s. Marony, G. 2152.
- , Georges. Filtrés de polarisation et correcteurs de polarisation. 1055.

- Valenta, Lubos.* Dependence of the spontaneous magnetization on the magnetic field at low temperatures. 1421.
- Valentine, L. s. Melville, H. M.* 802.
- , *Leslie.* Relation between rate constants, frequency factors, and activation energies in polymerization reactions. 1010.
- Valentiner, Siegfried* 80 Jahre. 1489.
- Valkenburg, E. van.* Two-helix method for polarization measurements of meteoric radio echoes. 516.
- Valkó, I. P. and Gergely, Gy.* Method for investigating relaxation processes. 2537.
- Valladas, Georges et Bernas, René.* Structure fine du rayonnement α de l'ionium. 2382.
- Valle, P. E.* Omogeneità e sullo stato di equilibrio del mantello interno della terra. 2565.
- Vallee, Bert L. and Baker, Milton R.* Anode temperatures and characteristics of the dc arc in noble gases. 2526.
- and *Thiers, Ralph E.* Effect of alkaline earth chlorides on the anode temperature of the dc arc. 2527.
- s. *Baker, Milton R.* 1894.
- Vallese, L. M.* Diffusion of pulsed currents in conductors. 1646.
- Vámos, Andreus s. Freund, Michael.* 2286.
- Vanavermaete, A.* Dispositif pour la mesure de faibles tensions alternatives, par la méthode de compensation. 642.
- Vance, John E. s. McKinley, John D. jr.* 1962.
- Vand, V.* Application of dislocation theory to the polytypism of silicon carbide. 444.
- and *Pepinsky, R.* Evaluation of statistical approach to phase determination in X-ray analysis. 790.
- , — Developments in the statistical approach to X-ray crystal analysis. 2066.
- Vandenbelt, J. M.* Cary spectrophotometers. 685.
- Vanderberg, R. M. s. Ellis, J. W.* 261.
- Vanderhoff, J. W. s. Alfrey, Turner.* 1682.
- s. *Bradford, E. B.* 1636.
- Vango, Stephen P. s. Mason, David M.* 1943.
- Vanhuysse, V. J.* Proper frequencies of terminated corrugated waveguides. I. Identical cavities. 679.
- Vanhuysse, V. J.* Proper frequencies of terminated corrugated waveguides with slightly different diameters. 1665.
- Resonance frequencies and the field configurations in terminated corrugated waveguides. 2178.
- Vankerckhoven, A. s. Pacault, A.* 274.
- Varga, P. s. Adám, A.* 853.
- Varma, Jagdish and Mandeville, C. E.* Level scheme of In¹¹⁵. 586.
- s. *Mandeville, C. E.* 957, 1155.
- , *J. s. Saraf, B.* 1163.
- , *K. K. and Ghosh, S.* Liesegang rings of silver chromate. I. II. 2449.
- Varnerin, L. J. jr. and Carmichael, J. H.* Role of re-emission in ionic pumping. 1097.
- s. *Garfunkel, M. P.* 1213.
- Varney, Robert N.* Liberation of electrons by positive-ion impact on the cathode of a pulsed Townsend discharge tube. 479.
- Diffusion of ions and electrons in an electric field. 1043.
- , *R. s. Beaty, E.* 141.
- Varsavsky, Carlos M. s. Billings, Donald, E.* 878.
- Varshneya, N. C. s. Biswas, N. N.* 2000.
- Varshni, Y. P. and Majumdar, K.* Spectroscopic constants of molecules. III. Regularities in vibration frequencies in a molecular group. 2408.
- and *Mitra, S. S.* Critical temperature — boiling point relations. 2320.
- s. *Karnatak, R. C.* 1804.
- , *Yatendra Pal.* Critical constants of normal paraffins. 215.
- Additive function v of critical pressures. 1963.
- Schwingungsfrequenzen im Grundzustand befindlicher Moleküle vom Typ XX. 2057.
- Relation of the vibrational constant w_2 of molecule XY with those of XX and YY. 2408.
- Vartanian, P. H. s. Ayres, W. P.* 1685.
- Vartapetian, Mlle Ophélie s. Tcharkirian, Arakel.* 622.
- Vash, A. M. s. Blewett, J. P.* 1391.
- Vasicek, Antonin.* Formula for the reflection of light from glass with a thin metallic film. 162.
- Vasileff, H. D.* Thermal ionization of impurities in polar crystals. 799.
- Vassas-Dubuisson, Mme Colette.* Spectre de vibration d'un monocristal de sulfate de lithium monohydraté. 800.

- Vassas-Dubuisson, C.* Spectre Raman de H_2O dans $Li_2SO_4 \cdot H_2O$. 2072.
- Vassy, A.* Étude dans le temps du spectre d'émission d'étincelles de grande longueur. 1191.
- Vastel, Jean.* Accélérateur linéaire d'électrons pour 3 à 4 Mev. 934.
- Vaughan, H. E. s. Horton, A. W. jr.* 2501.
- , *Philip and Donohue, Jerry.* Structure of urea. Interatomic distances and resonance in urea and related compounds. 1005.
- , *Philip A. s. Ohlberg, Stanley M.* 2418.
- , *T. B. s. Ramm, C. A.* 1986.
- Vauthier, R.* Applications de l'optique des charges électriques à la spectrométrie de masse. 2342.
- Vautier, Roger.* Micromanipulateur de construction simple. 906.
- Vedder, James s. Dudziak, Walter.* 1342.
- *s. Sagane, Ryokichi.* 1342.
- Veelken, Reinhard.* Theorie des elektrischen Durchschlags von Alkalihalogenuiden. I. Wechselwirkungspotential zwischen schnellen Elektronen und Gitterschwingungen in polaren Kristallen. 1445.
- II. Berechnung der Elektronenbremsung; numerische Ergebnisse. 1445.
- Veen, B. van der.* Equivalent network of a piezo-electric crystal with divided electrodes. 1451.
- Veenstra, P. C., Jongerius, H. M., Paris, C. H. and Valckx, F. P. G.* Development of a 800 kV acceleration tube. 1985.
- Veersen, G. J. van.* Preparation of cyclized rubber from natural rubber latex. 457.
- Vega, M.^a Angela de la s. Vigón, M.^a Teresa.* 2533.
- , *Manuel Nosti s. Castro Ramos, Rosalino de.* 2449.
- Vegors, Stanley H. jr. and Axel, Peter.* Gamma-ray induced isomers with half-lives between 10^{-5} and 10^{-1} second. 1159.
- Veiel, U. s. Stuart, H. A.* 266.
- Veil, Mlle Suzanne.* Etude, à la périodicité, de l'influence mutuelle des diffusions dans les gels. 809.
- Veith, W.* Elektronengeschwindigkeiten bei der Hohlkathode. 1044.
- Velden, H. A. van der s. Freeman, G. P.* 1979.
- Veldkamp, J. s. Bartels, J.* 520, 885.
- Veldstra, J. M. M.* VHF phase-modulated transmitter-reciver for 4-channel telephony. 1053.
- Velthoven, Th. M. W.* Oscilloscope, type GM 5660. 1015.
- Vendryès, G. s. Auclair, J. M.* 768, 2369.
- Venel, Mlle A. M. et Pouradier, J.* Echanges des ions argent entre du bromure d'argent et une solution de bromure alcalin saturée en argent. 551.
- Venkatesan, D. s. Sarabhai, V.* 427, 2047.
- Venkateswarlu, K. and Sundaram, S.* Evaluation of force constants from Raman effect data: molecules, radicals and groups of pyramidal XY_3 type. 1187.
- , *Putchu.* Infrared spectrum of methyl cyanide. 997.
- Venzke, Günter.* Akustische Messungen an Bauelementen von Klimaanlage für Rundfunk- und Fernsehstudios. 209.
- Verbeek, L. H.* Spezifische Lichtmenge der Photoflux-Blitzlichtlampen. 861.
- Verdaguer, F. s. Hancock, D. A.* 598.
- Verde, M.* Asymptotic expansions of phase shifts at high energies. 1164.
- Verdini, L. s. Gabrielli, I.* 921.
- Vergnolle, J. s. Bonnemay, M.* 2484, 2486.
- Vergnoux, A. M. et Pouzol, M.* Biréfringence des cristaux dans l'infrarouge proche. 861.
- Verkerk, B. and Aten, A. H. W. jr.* Radiations from arsenic 70. 2030.
- Verlet, L. s. Drell, S. D.* 1386.
- *s. Lane, A. M.* 1597.
- Verma, Ajit Ram.* Interferometric observation of mosaic structure on the (111) face of a single crystal of germanium. 287.
- Transmission-linke reflexion fringes — in birefringent crystals. 2531.
- Mulk Raj and Paul, Sukh Deo.* Volumetric method for the determination of zirconium. 194.
- Vermeil, C.* Effects accélérateurs ou inhibiteurs des hydrocarbures en solution aqueuse sur l'oxydation de $FeSO_4$ par les rayonnements ionisants. 1. 613.
- Vermeulen, Theodore, Williams, Gael M. and Langlois, Gordon E.* Interfacial area in liquid-liquid and gas-liquid agitation. 1014.
- Vermilyea, D. A. s. Bean, C. P.* 2478.
- Vernotte, P.* Problème du dépouillement des expériences. 191.

- Veronesi, P. s. Brini, D. 425, 680, 1324.
 — s. Ferretti, L. 1443.
- Verster, N. F. s. Nussbaum, R. H. 1781, 1782, 2029.
 s. Wapstra, A. H. 2024.
- Verstraten, J. Measurements on transmitters and receivers for super high frequencies. 2452.
- Verzaur, P. Transmission des ondes hertziennes par les gaz fortement ionisés. 2175.
- Vetter, Klaus J. Reaktionsüberspannung. 138.
 — Vollständige theoretische Stromspannungsbeziehung beim Volmer-Horiutischen (elektrochemischen) Mechanismus der H^+/H_2 -Redoxelektrode und die Beziehung zum Volmer-Tafelschen Mechanismus. 138.
 — Kinetik von Elektrodenprozessen. 656.
 — Aktivzustand und spontane Repassivierung von stromaktiviertem Eisen in Salpetersäure. 2146.
- Verzár, F. Veränderungen der thermoelastischen Eigenschaften von Sehnenfasern beim Altern. 1692.
- Vette, J. I. s. Walker, R. L. 1522.
- Viallard, Rodolphe s. Dreyfus-Alain, Bertrand. 105.
- Viallier, J. et Tigaud, J. Étude spectroscopique de la coloration prise par les mycobactéries sous l'influence du rouge neutre. 1478.
- Vicena, Frantisek. Connection between the coercive force of a ferromagnetic and internal stress. 275.
 — Question of the effect of stresses produced during precipitation. 1271.
- Vickers, D. O. s. Cade, R. 1017.
- Viehweger, Heinz. Einfluß von Glasspannungen auf die Bildgüte eines optischen Systems. 309.
- Vienet, R. s. Prévot, F. 232.
- Viervoll, H. s. Romberg, W. 1491.
- Vieweg, Richard, 60 Jahre. 1490.
 60. Geburtstag. 1918.
 , R. Präzisionsmessungen in ihrer industriellen Bedeutung. 2273.
- Vigier, J. P. s. Bohm, D. 3.
- Vignerot, Léopold s. Philbert, M. Georges. 1769.
- Vigon, M. A. und Montero, E. Selbstabsorption der Zerfallselektronen von In^{116} in Indiummetall. 2031.
- Vigón, M.^a Teresa, Vega, M.^a Angela de la y Solís, Miquel. Variaciones de la imagen latente durante el intervalo de tiempo que precede al revelado. 2533.
- Vigone, M. s. Debenedetti, A. 989.
- Villaire, A. E. and Wouters, L. F. Fission fast counter using the gas scintillation principle. 1123.
- Villalón, J. Montes y Abbad, M. Máquina eléctrica para efectuar algunos cálculos que intervienen en la determinación de estructuras cristalinas. 896.
- Villar, Francisco. Procedimiento para calcular una superficie asférica que lleve a tolerancia la aberración esférica de un sistema optico. 689.
- Villard, O. G., Eshleman, V. R., Manning, L. A. and Peterson, A. M. Role of meteors in extended-range VHF propagation. 2561.
- Villars, D. S. s. Rekers, R. G. 1966.
- Villchur, Edgar M. Handbook of sound reproduction. 2304.
- Villforth jr., F. J. s. Barber, E. M. 202.
- Villi, C. s. Beretta, L. 1377.
 — s. Clementel, E. 7, 425, 609, 773, 774.
 — s. Ferrari, F. 398.
- Vincent, D. H. s. Houtermans, F. G. 140, 2023.
 — s. Meyer-Schützmeister, L. 2024.
 —, Earl s. Cowan, George R. 1512.
 —, L. D. s. Little jr., R. N. 980.
- Vincent-Geisse, J. Mesures d'intensité et de largeur de raies d'absorption dans l'infrarouge. Application à l'oxyde de carbone. 783.
- Vincenz, B. s. Geneux, E. 97.
- Vinegar, Ralph s. Clark, Carl. 2198.
- Vink, H. J. s. Boomgaard, J. van den. 290.
 — s. Krüger, F. A. 2477.
- Vinti, John P. Theory of the penetration of γ -rays through thin barriers. 1173.
- Violet, Charles E., Gilbert, F. C. and White, R. Stephan. Negative K-particle interactions in nuclear emulsion. 1758.
 s. Gilbert, F. C. 1758.
 s. Iloff, Edwin L. 2353.
 s. White, R. Stephan. 1758.
- Visconti, A. Applications du formalisme de l'opérateur d'évolution. 186.
 s. Umezawa, H. 188.
 , Antoine. Solution des équations du type de diffusion; applications à la théorie de la renormalisation. 719.
- Viscontini, M., Schmid, H. und Hadorn, E. Isolierung fluoreszierender Stoffe aus astacus fluviatilis. 876.

- Visse, Léon.* Constatations sur la radio-activité des phosphates africains. 1699.
- Visscher, W. M. s. Ferrell, R. A.* 1791.
- Self-energy effects on meson-nucleon scattering according to the Tamm-Dancoff method. 424.
- and *Ferrell, Richard A.* Nuclear forces and the beta decay of C^{14} . 411.
- Viste, R. s. Blanc, D.* 1974.
- Viswanathan, K. S.* Theory of the elasticity of crystals. 1100.
- *s. Raman, Sir C. V.* 1461.
- *S. s. Saksena, B. D.* 1006.
- Vitale, B. s. Amati, D.* 2024.
- , *Bruno.* Equilibrio ionico nella bassa atmosfera e le teorie sulla ricombinazione. 529.
- Vitart, M. s. Hée, A.* 1283.
- Vitha, F. A.* Portable pulse test-set for the measurement of impedance irregularities in coaxial cables used for the transmission of television signals. 1057.
- Mechanical design of measuring equipment. 1243.
- Vitoria, Eduardo.* Isotope und ihre Trennung. 948.
- Vittorelli, M. B. Palma, Palma, M. U., Palumbo, D. and Santangelo, M.* Determination and properties of anisotrop in paramagnetic resonance absorption. 816.
- Vittorio, P. V., Krotkov, G. and Reed, G. B.* Incorporation of C^{14} into various carbohydrates of tobacco leaves after different periods of photosynthesis in $C^{14}O_2$. 876.
- Vittoz, B.* Méthode de mesure précise d'une petite différence de phase. 160.
- Vinargent, s. Yuasa, T.* 2022.
- Vivo, Juana L. s. Wertz, John E.* 1645, 1848.
- Vlaar, H. T. and Aten jr., A. H. W.* Gamma to position ratio of copper 64. 2030.
- Vlm, C. C.* Shape of the emission bands of luminescent solids. 328.
- Vleck, J. H. van.* Bloembergen spin reservoir temperature in paramagnetic resonance experiments. 1019.
- *s. Kambe, K.* 621.
- Vlerk, I. M. van der s. Niggli, E.* 874.
- Vlieger, J. s. Fieschi, R.* 271.
- Vliet, K. M. van s. Wijngaarden, J. G. van.* 2180.
- Vodar, B.* Progrès récents dans l'étude de l'ultraviolet lointain. 854.
- *s. Dapigny, J.* 1950.
- *s. Galperin, B.* 1723.
- , *Boris s. Coulon, Roger.* 2057.
- *s. Galatry, Louis.* 1618.
- *s. Saurel, Jean.* 1724.
- Voelkel, Heinz s. Menzer, Ernst.* 2515.
- Völkl, W. s. Breiter, M.* 661.
- Vogan, E. L. s. Forsyth, P. A.* 1482, 2561.
- *s. Hines, C. O.* 706, 2561.
- Voge, Jean.* Fluctuations du champ électromagnétique dues à la turbulence, à l'extrémité d'un trajet de propagation en visibilité directe. 2583.
- Vogel, H. s. Böer, K. W.* 2133.
- , *S. s. Kurtze, G.* 2303.
- , *Walter.* Parataktische Abbildung im isotropen Raum von fünf Dimensionen. 1091.
- Vogelpohl, G.* Schlußwort zur Erwiderung Umstätter auf Kochanowsky. 2077.
- Vogler, L. E. s. Norton, K. A.* 2261.
- Vogt, Erich.* Nucleon-nucleus interaction with polarization. 1536.
- , *Hans-Jürgen.* Spitzenstrom von Oxydkathoden in Bogenentladungen. 838.
- Voigt, A. F. s. Allison, M.* 2362.
- *s. Day jr., M. C.* 1568.
- , *Heinz.* Dynamische Berstdruckprüfung von Hohlkörpern. 1688.
- , *J. s. Schwabe, K.* 2324.
- , *Wilfried.* Kompensator zur Messung optischer Phasendifferenzen an Hochpolymeren und Kristallen. 1065.
- Voigtlaender-Tetzner, G. s. Becherer, G.* 2437.
- Voils jr., Richmond M.* Calculation of liquid flow coefficients. 2292.
- Volchok, Herbert L. and Kulp, J. Lawrence.* Half-life of yttrium-90. 59.
- Volčkov, Ilija s. Mitrakovic, Branko.* 1447.
- Volger, J. and Stevels, J. M.* Electric polarizability of colour centres in quartz crystals and glasses. 1407.
- Volk, Murray E.* All-glass rotary film evaporator. 1112.
- Volkoff, G. M. s. Waterman, H. H.* 1212.
- Volkov, A. B. s. Brennan, J. G.* 568.
- Vollmer, Albert.* Atomsysteme und Spektrallinien. 1706.
- Vollrath, R. E. and Samson, J. A. R.* Obtaining high temperatures for nuclear fusion. 1557.

- Volman, David H. Excited states of oxygen from energy transfer and light absorption. 2063.
- Volmer, Max zum 70. Geburtstag. 1490.
- Volovick, Grégoire. Etude de l'opacité des lubrifiants paraffiniques et naph-téniques en milieu SO_2 . 1271.
- Voltz, Sterling E. and Rigg, M. Wesley. Dielectric study of the autoxidation of ethyl sorbate. 2086.
- Voorhis, C. C. van s. Ladenburg, R. 18.
- Voshage, H. s. Herr, W. 1765.
- s. Hintenberger, H. 1765.
- Voss, B. s. Bittel, H. 1848.
- , Hans. Graphische Ermittlung der Frequenzabweichung einer Quarzuhr vom Sollwert. 2272.
- , H. H. s. Drexler, G. 2183.
- , J. R., Palfrey, T. R. and Haxby, R. O. Coulomb effect on the photoproduction of low-energy charged mesons. 397.
- , R. G. P. and Wilson, R. Neutron and proton distributions in heavy nuclei. 1531.
- Voyvodic, L. Charged heavy mesons from nuclear collisions. 44.
- Vries, A. E. de. Enrichment of radioactive isotopes by thermal diffusion. 1545.
- s. Haack, P. J. van der. 2024.
- , Hl. de. Rotatory power and other optical properties of certain liquid crystals. 449.
- and Barendsen, G. W. Breakdown of Geiger-Müller counters at high over-voltages. 1975.
- Technique for the measurement of age by radiocarbon. 2344.
- and Fergusson, G. J. CO_2 for radio-carbon dating. 38.
- Vries-Hamerling, T. de s. Aten jr., A. H. W. 2371.
- Vrijer, F. W. de. Influence of nuclear spin and of super-exchange on the spin specific heat of $\text{Cu}(\text{NH}_4)_2(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$. 1959.
- Vrkljan, Vladimir. Darwinsche Ableitung des magnetischen Moments des Elektrons und des Positrons. 900.
- Vroelant, Claude. Importance de la configuration électronique la plus probable dans l'étude des systèmes électroniques. 717.
- , C. s. Chalvet, O. 367.
- Vroom, R. A. s. Roggen, A. van. 325.
- Vuccino, S. Etude de la méthode des coincidences appliquée à l'étalonnage absolu du ^{24}Na , ^{60}Co et ^{46}Sc . 2385.
- Vuorela, Lauri A. Results from the Finnish atlantic expedition. 2252.
- ## W
- Waard, H. de. Lifetime of the 279-kev excited state of Tl^{203} . 1559.
- and Gerholm, T. R. Half-life of the 145 keV level of 141 praseodymium. 2381.
- , Prins, W. and Prins, A. Moulded polystyrene scintillators. 1978.
- s. Gerholm, T. R. 1783.
- Waarden, M. van der s. Harmsen, G. J. 1636.
- Wachendorf, F. Bestimmung eines optimalen Linsensystems. 320.
- Wachsmann, F., Barth, G., Felzer, H., Ries, J. und Schulte, G. Vergleich der Wirkung von Röntgen- und Radiumstrahlung auf die menschliche Haut. 344.
- s. Balz, G. 1277.
- , Felix. Sättigungserscheinungen in Ionisationskammern bei verschiedenen Betriebsarten. 1275.
- Wachtel, M. M. s. Sternglass, E. J. 1124, 1447.
- Wachtell, G. P. s. Bershader, D. 17.
- Wack, M. s. Hée, A. 948.
- Wada, W., Block, M. M. and King, D. T. Direct creation of electron pairs by electrons of great energy. II. Theoretical considerations. 42.
- s. Block, M. M. 42.
- s. King, D. T. 42.
- , Walter s. Kroll, Norman M. 1344.
- , W. W. s. Block, M. M. 936.
- , Yoshimasa. Recurrent figure of a jet. 2296.
- Waddell, Charles, Shaw, Harlan, Cohen, David and Moyer, B. J. 15.2-Mev gamma emission from carbon-12. 62.
- s. Cohen, David. 62.
- s. Shaw, Harlan. 559.
- , John H. High-speed photography. 1065.
- , J. M., Mayer, S. E. and Kaye, S. Germanium diffused-junction photoelectric cell. 826.
- , R. C. s. Pokin, A. V. 594, 2384.
- Waddington, C. J. Interaction of cosmic ray alpha-particles. 1357.

- Waddington, C. J. s. *Dahanayake, C.* 561.
 Wade, Campbell M. s. *Bok, J.* 2563.
 Wadey, W. G. Radiation shielding doors. 762.
 — Laboratory vacuum fittings and standardization of vacuum fittings. 905.
 — and Schultz, H. L. Yale linear electron accelerator and facilities. 558.
 — s. *Schutz, H. L.* 556.
 Wadhwa, Y. D. Boundary layer thickness. 1104.
 Wadia, B. H. s. *Ginzton, E. L.* 2516.
 Waechter, K.-H. s. *Sommermeyer, K.* 1078.
 Wächter, M. s. *Erdős, P.* 1360.
 Wächter, Maximilian s. *Gabler, Heinz.* 490.
 Wäffler, H. s. *Nabholz, H.* 596.
 — s. *Schinz, H. R.* 1090.
 Wänke, H. und Monse, E. U. Szintillationszählung der (n, α)- bzw. (n, f)-Reaktion zur Isotopenanalyse bei Lithium, Bor und Uran. 556.
 Wagener, S. Adsorption measurements at very low pressures. 639.
 — Influence of electronic impact on the rate of sorption of gases on to getter materials. 192.
 Wageningen, R. van and Boer, J. de. Quadrupole moments of nuclei according to the spheroidal nuclear model. 2008.
 Wagman, Donald D. s. *Evans, William H.* 2309.
 Wagner, C. Galvanische Zellen mit festen Elektrolyten mit gemischter Stromleitung. 1439.
 —, Carl. Möglichkeiten und Grenzen des kathodischen Fernschutzes. 870.
 —, E. H. Beugung paralleler Lichtbündel an laufenden Ultraschallwellen. I. II. 379.
 — Lichtbeugung an laufenden Ultraschallwellen. III. Strenge Lösung des Beugungsproblems für divergente Lichtbündel (Zylinderwellen). IV. Beugungsfeld in großem Abstand von der Küvette bei divergentem Primärbündel. 1313.
 — s. *Niehrs, H.* 1003.
 —, F. jr. s. *Freedman, M. S.* 1370.
 — s. *Porter, F. T.* 595, 1369.
 — s. *Magnusson, L. B.* 1160.
 —, G. s. *Houtermans, F. G.* 140.
 —, Genevieve D. and Wiig, Edwin O. Reactions of cobalt with protons at 60, 100, 170 and 240 Mev. 1537.
 —, H. s. *Borrmann, G.* 2064.
 —, H. Gg. Kohlenoxyd-Sauerstoff-Detonationen. 925.
 —, P. E. Contact charging between monocrystalline non-conductors and metals. 1051.
 —, Paul T. Calculating half-life for low activities of short-lived nuclides. 39.
 —, Siegfried. Isotopieverschiebung im Cu I-Spektrum. 97.
 —, Willy †. 2254.
 Wagoner, G. s. *Dresselhaus, G.* 823, 1860.
 Wahab, M. A. El s. *Bedewi, F. A. El.* 75.
 Wahl, Arthur C. Fission of U^{235} by 14-Mev neutrons: nuclear charge distribution and yield fine structure. 1146.
 —, Eberhard W. Statistisches Entropieverhältnis. Hilfsmittel zur Lösung von Vorhersageproblemen. 2334.
 Wahlin, Erik und Hans, Willi. Untersuchung polarographischer Maxima. 4. Polarographische Maxima in Methanol-Lösungen. 2155.
 Wahr, J. C., McCormick, W. W. and Sawyer, R. A. Emission characteristics of vacuum spark discharges. III. Aluminium and carbon spectra in the visible region. 1404.
 Wainfan, N., Walker, W. C. and Weissler, G. L. Photoionization cross sections of CO_2 , A, H_2 and H_2O . 996.
 — — — Photoionization efficiencies and cross sections in O_2 , N_2 , CO_2 , A, H_2O , H_2 and CH_4 . 1685.
 s. *Walker, W. C.* 846.
 Wainschein, E. E. Form der Gleichung für die umgebildete Schwärzungsfunktion. 323.
 *Wait, George R. Aircraft measurements of electric charges carried to ground through thunderstorms. 529.
 —, J. R. s. *Frood, D. G.* 681.
 —, James R. Fields of a line source of current over a stratified conductor. 892.
 — Scattering of a plane wave from a circular dielectric cylinder at oblique incidence. 1448.
 Wakatsuki, Tetsuo and Sugimoto, Kenzo. Excitation of gamma-rays by fast neutrons. 2392.
 Wakefield, Ernest H. Economic status of the nuclear-instrument industry. 758.
 Wakeshima, Hiromu. Spontaneous condensation in a supersonic flow of humid air. 917.

- Wakiya, Shōichi. Spherical obstacle in the flow of a viscous fluid through a tube. 2291.
- Wakkad, S. E. S. El and Hickling, A. Anodic behaviour of metals. 2145.
- Walcher, W. s. Becker, E. W. 1981.
- s. Brix, P. 2050.
- s. Fischer, W. 759.
- Waldersee, J. Effect of the finite radii of the knife edges on the performance of an equi-arm balance. 2279.
- Waldman, B., Spiegel, V. jr. and Miller, W. C. Plural scattering of fast electrons. 1172.
- s. Conners, D. R. 971.
- s. Dempsey, D. F. 1123.
- s. Ruane, T. F. 1171.
- s. Spiegel, V. jr. 1172.
- Waldmann, Klaus s. Simon, Arthur. 2054.
- Waldmeier, M. Minimumsstruktur der Sonnenkorona. 175.
- Polare Fackeln. 515.
- Final relative sunspotnumbers for 1953. 515.
- Wie sieht die Korona vor der Sonnenscheibe aus? 877.
- Provisional sunspot-numbers for July to September, 1954. 878.
- Synoptische Karten der Sonnenkorona. 1081.
- Züricher Sonnenfinsternisexpedition 1954. 1480.
- Variation der monochromatischen Gesamtmission der Sonnenkorona im 11jährigen Zyklus. 2231.
- und Bachmann, H. Ergebnisse der Züricher Sonnenfinsternisexpedition 1954. II. Ultrarot-Photometrie der Kotona. 877.
- Waldron, R. A. Ferrites in resonant cavities. 1877.
- , R. D. Infrared spectra of ferrites. 1827.
- Wales, M., Sulzer, P. G. and Williams, L. C. Pulsed light system for multiple-cell ultracentrifuge rotor. 1935.
- , R. A. McF. s. Potok, M. H. N. 1843.
- Walker, A. s. Crowe, M. O'L. 171.
- , D. F., Angus, E. T. and Maune, A. E. High speed magnetic amplifiers. 1243.
- , J., Tagliaferri, G., Bower, J. C. and Hadley, D. W. Simple fast-recycling cloud chamber. 1323.
- , J. K., Gifford, A. P. and Nelson, R. H. Process monitor mass spectrometer. 1516.
- Walker, L. R. Dispersion formula for plasma waves. 480.
- , P. L. jr. and Rusinko, F. jr. Sorption-hysteresis properties of gases on carbonyl iron powder. 2331.
- , R. A. s. Douglas, H. W. 2097.
- , R. L., Oakley, D. C. and Tollestrup, A. V. Photoproduction of neutral pions in hydrogen: p - γ coincidences. 941.
- , Teasdale, J. G., Peterson, V. Z. and Vette, J. I. Photoproduction of positive pions in hydrogen-magnetic spectrometer method. 1522.
- s. Oakley, D. C. 942.
- s. Sands, M. 397, 1525.
- s. Watson, K. M. 2354.
- , R. M., Preston, R. S., Fowler, E. C. and Kraybill, H. L. Production of neutral V-events by cosmotron neutrons. 941.
- — — — Production of neutral V events in lead by neutrons from the cosmotron. 1133.
- , R. W. s. Lord, R. C. 2410.
- , W. C. and Weissler, G. L. Light absorption and photoionization in NO and N₂O. 788.
- , Wainfan, N. and Weissler, G. L. Photoelectric yields of metals in the vacuum ultraviolet. 846.
- s. Wainfan, N. 996, 1685.
- , William C. and Weissler, G. L. Energy distributions of photoelectrons from Au and Ge in the far ultraviolet. 149.
- , W. D. Λ^0 - G^0 production in π -P collisions at 1 Bev. 1133.
- and Crussard, J. Interactions of 1.5-Bev π^- mesons. 1385.
- and Shephard, W. D. π^- -P collisions at 1.0 Bev. 1994.
- s. Duller, N. M. 426.
- s. Shephard, W. D. 1994.
- Wall, F. T. and Gill, S. J. Transference numbers of electrolytes under pressure. 829.
- , Hiller, L. A. jr. and Wheeler, D. J. Statistical computation of mean dimensions of macromolecules. I. 1200.
- s. Terayama, Hiroshi. 1631.
- , L. A. s. Florin, R. E. 1632.
- s. Sinha, Robert. 450.
- , N. S. Proton angular distributions from deuteron bombardment of Bi²⁰⁹, Pb²⁰⁷ and Y⁸⁹. 412.
- Neutron binding energies from (d, p) Q values. 1765.

- Wall, N. S. and Irvine, J. W. jr. Preparation of unusual targets for cyclotron studies. 935.
- , Rees, J. R. and Ford, K. W. Elastic scattering of 22-Mev alpha particles. 601.
- s. Bromley, D. A. 1589.
- s. Rasmussen, V. K. 64.
- , R. F., Giusti, A. L., Fitzpatrick, J. W. and Wood, C. E. Field application of infrared analyzers. 1679.
- Wallace, A. A. s. Calderwood, J. H. 2497.
- , J. s. Page, L. A. 1129.
- , L. V. and Nicholls, R. W. Interpretation of intensity distributions in the N_2 second positive and N_2^+ first negative band systems. 1819.
- , P. R. Modification of the one-particle model for nuclear radiative transitions. 1363.
- , Roger s. Brabant, John M. 1529.
- , R. W. s. Brandtel, K. C. 1602.
- , Roger W., Jester, Malvern H. L. and Brabant, John M. Total-absorption spectrometer measurements of the gamma rays emitted from targets bombarded with 6.2-Bev protons. 2036.
- , W. E. s. Smith, Charles S. 1735.
- Wallenmeyer, W. A. Meson production in n-p collisions by cosmotron-produced neutrons with energies up to 1.5 Bev. 2002.
- Waller, J. G. s. Smith, J. W. 2157.
- , Mary D. Study of powder and granular ridges in a sound field. 21.
- Air circulations about a vibrating plate. 377.
- Powder striations produced by electric sparks. 2301.
- Wallis, K. F. A. s. Graham, A. 169.
- Wallis, M. C. s. Herman, Robert. 1826.
- , R. F. s. Mador, I. L. 445.
- , Richard F. s. Herman, Robert. 1814, 1825, 1826.
- Wallot, Julius. 80 Jahre. 2255.
- Waloschek, P. s. Biswas, N. N. 2000.
- Walser, M., George, J. and Bodenlos, L. J. Altered proportions of isotopes of molecular nitrogen as evidence for a monomolecular reaction. 1964.
- Walsh, A. Application of atomic absorption spectra to chemical analysis. 858.
- , D. Electron affinity of hydrogen in a microwave gas discharge. 1610.
- Walsh, Bright, A. W. and Bridges, T. J. Electrode deterioration in keep-alive discharges in transmit-receive switches. 1233.
- , John M. and Christian, Russel H. Equation of state of metals from shock wave measurements. 729.
- , Joseph G. s. Price, Charles C. 453.
- Walske, M. C. Stopping power of L-electrons. 2390.
- Walt, M. and Beyster, J. R. Interaction of 4.1-Mev neutrons with nuclei. 979.
- Interaction of 4.1-Mev neutrons with nuclei. 1378.
- s. Thomas, R. G. 2391.
- Walter, A. T. Elastic properties of polyvinyl chloride gels. 1013.
- , Kurt s. Moncibowycz, Alexander. 350.
- , M. s. Rubin, R. 952.
- , Roland. Modell zur Veranschaulichung der Richtwirkung von zwei Vertikal-Strahlern. 489.
- , Wolfgang. Vergleich zwischen einem Kontaktregler und einem Magnetregler für Synchrongeneratoren. 1873.
- Walters, R. s. Hopkins, R. E. 1067.
- , S. H. Installation of continuous infrared analyzers. 1679.
- Walton, R. B., Becker, R. L., Clement, J. D. and Zucker, M. S. $C^{13}(\alpha, n)$ reaction. 575.
- s. Darden, S. E. 86. 1597.
- s. Thomas, R. G. 2391.
- , S. s. Lees, J. 1431.
- , W. H. s. Hamilton, R. J. 2191.
- Waltz, K. s. Kossel, W. 1823.
- Wambacher, H. Mikroskopie und Kernphysik. 2341.
- Wandel, C. F. s. Lane, A. M. 366, 1169.
- Wanders, G. s. Stuckelberg, E. C. G. 186, 1293.
- Wandsdröck, C. s. Clay, J. 2044.
- Wanford, D. W. B. s. Eggleton, A. E. J. 2090.
- Wang, A. J. and Hopkins, H. G. Plastic deformation of built-in circular plates under impulsive load. 919.
- s. Hopkins, H. G. 919.
- , Theodore J. Cavity ionization chamber for measurement of absorbed X-radiation energy. 1976.
- , Tien-Chuan. Pure nuclear quadrupole spectra of chlorine and antimony isotopes in solids. 2106.

- Waniek, R. W., Fox, R., Garrido, L. and Silver, E. G. Interaction of high-energy neutrons with molybdenum. 1353.
- , Garrido, L., Goloskie, R. and Silver, E. G. Secondaries from high energy neutron interactions with tungsten 1539.
- s. Culler, Vaughn. 1380, 1595.
- s. Furth, H. P. 757.
- Wang, C. C. s. Levitas, A. 650.
- , P. K. S., Raridon, R. J. and Tidwell, Marvin. Scintillation spectrometry of X-rays from a Be-window tube. 684.
- s. Raridon, Richard. 684.
- s. Tidwell, Marvin. 684.
- Wanless, R. K. and Thode, H. G. Fission yields of isotopes of xenon and krypton in the neutron fission of U^{235} and U^{238} . 2370.
- Wannier, G. H. Threshold law for multiple ionization. 1607.
- , Gregory H. Corrected values for the charge transfer cross section in the noble gases. 141.
- Threshold law for single ionization of atoms or ions by electrons. 1607.
- Possibility of a Zener effect. 1854.
- Wansink, D. H. N., Taconis, K. W., Staas, F. A. and Reuss, J. Flow of helium II through narrow slits. 1948.
- s. Meijdenberg, C. J. N. van den. 262.
- Wapstra, A. H. Decay scheme of RaC . 2009.
- 2^+ first excited state in heavy even-even nuclei. 2029.
- Competition between d_{512} and g_{712} levels in Sb, I, Cs, and La; the decay of ^{135}La . 2029.
- Isotopic masses. I. $A < 34$. II. $33 > A > 202$. 2357.
- Decay energies of Pb^{209} and Si^{31} . 2372.
- , Sterk, M. and Kropveld, R. E. W. Decay of ^{237}U . 2024.
- , Verster, N. F. and Boelhouwer, M. Radioactive isotopes of I, Xe and Cs. 2024.
- , Maeder, D., Nijgh, G. J. and Ornstein, L. Th. M. Decay of ^{203}Hg , ^{203}Pb and ^{201}Pb . 1782.
- s. Aten, A. H. W. jr. 2381.
- s. Lindström, G. 2386.
- s. Nussbaum, R. H. 1573, 1781, 1782, 2029.
- s. Nussbaum, R. N. 581.
- s. Ornstein, L. Th. M. 2367.
- s. Sterk, M. J. 1575, 1979, 2029.
- Warburg, Otto. Photodissoziation und induzierte Atmung, Fundamental-Reaktionen der Photosynthese. 1905.
- Warburton, F. W. Emission of electrical influence. 465.
- Warburton, F. W. Emission of electrical influence. 465.
- Ward, A. F. H. and Brooks, L. H. Flattening of meniscus between water and organic solvents. 2088.
- , A. H. Unisector timing unit for controlling scalars. 12.
- , J. C. s. Potts, R. B. 2454.
- , J. K. Ground-state potential constants of ClO_2 . 99.
- and Loyd, C. M. Intensity of vibronic bands in 3000—5000 Å absorption system of chlorine dioxide. 2058.
- , R. s. Pollister, A. W. 2223.
- , W. and Hartley, F. Spectrographic analysis of glass-making sands. 2216.
- Waring, R. K. jr. Helium film transfer rate from 0.14 to 2.19° K. 1829.
- Warman, J. B. s. Flood, J. E. 1667.
- Warnecke, R. J. s. Charles, D. 1060.
- Warner, R. E., Owen, G. E. and Stewart, A. B. Electric field in an oscillating discharge. 144.
- , R. M. jr. and Shrader, E. F. Angle-energy distribution of radiation from high-energy electron accelerators. 40.
- Warren, B. E. s. Chipman, D. L. 777.
- , Dana T. Altitude effect on cosmic-ray fine structure. 248.
- , J. s. Chackett, G. A. 766.
- , J. B., Alexander, T. K. and Chadwick, G. B. Reaction $Li^6(p, \gamma)Be^7$. 2011.
- , Laurie, K. A., James, D. B. and Erdman, K. L. Gamma radiation from the proton bombardment of oxygen. 66.
- s. Erdman, K. L. 66.
- s. Griffiths, G. M. 243.
- s. James, D. B. 929.
- s. Sample, J. T. 932.
- , K. L. s. Silvidi, A. A. 1745.
- , Roger. Electric field measurements in a glow discharge using a refined electron beam technique. 670.
- , Roger W. Electric field measurements in glow discharges by electron beam probe techniques. 1045.
- , Roger. Field measurements in glow discharges with a refined electron beam probe and automatic recording. 1441.

- Warren, Roger. Field measurements in the cathode region of glow discharges. 1441.
- Warrick, E. L., Piccoli, W. A. and Stark, F. O. Melt viscosities of dimethylpolysiloxanes. 2436.
- Warschauer, D. M., Paul, W. and Brooks, H. Effect of pressure on the optical absorption edge in silican and germanium. 2121.
- Warshaw, S. D., Swanson, R. A. and Rosenfeld, A. H. Cross sections for the reactions $C^{12}(p, pn)(n, 2n)C^{11}$. 1353.
- Wartburg, R. von s. Eggert, J. 163.
- Waser, Jürg and Schomaker, Verner. Fourier inversion of diffraction data. 103.
- Washer, Francis E. Instrument for measuring the marginal power of spectacle lenses. 1458.
- Wasscher, J. D. s. Marel, L. C. van der. 1019.
- Wassef, Elaine G. T. Application of the binocular matching method to the study of the subjective appearance of surface colours. 701.
- Wassenaar, T. s. Michels, A. 2308.
- Wasserburg, G. J. and Hayden, R. J. Age of meteorites by the $A^{40}-K^{40}$ method. 516.
- — Time interval between nucleogenesis and the formation of meteorites. 1482.
- — Branching ratio of K^{40} and the age of meteorites. 1750.
- Wassermann, A. s. Mongar, J. L. 383.
- Wasserrab, Th. Positive Säule bei veränderlichem Entladungsstrom. 480.
- , Theodor. Theorie des Quecksilber-Kathodenflecks. 1657.
- Gradient der positiven Säule in Quecksilberdampf. 1657.
- Wasserstein, B. Cube-edges of uraninites as a criterion of age? 1984.
- Watadani, Kunihiko s. Miyanishi, Michika. 2404, 2495.
- Wataghin, G. Teoria quantistica di interazioni non locali. 188.
- , V. s. Erdös, P. 1360.
- Watanabe, Denjiro s. Ogawa, Shiro. 1205, 2546.
- , Hiroshi. Energy analysis of electron diffraction patters. 1624.
- , Ichie. Renormalization of Heisenberg treatment. 2268.
- Heirenberg treatment of the field variables. 2268.
- Watanabe, K. Improvement of grating efficiency in the vacuum ultraviolet by platinizing. 492.
- s. Highashi, S. 1177.
- , Satoshi and Oleson, Norman. Possible explanation of moving striations in discharge tube. 1235.
- and Oleson, Norman L. Traveling density waves in positive columns. 1235.
- , Seiichiro s. Okamura, Tosihiko. 2455.
- , Yukihiko s. Ito, Daisuke. 2270.
- Watari, W. s. Araki, G. 2412.
- s. Fujii, S. 2360.
- Watase, Takeo s. Kakudo, Masao. 995.
- s. Tanaka, Toshio. 1110.
- , Y., Suga, K., Tanaka, Y. and Mitani, S. Production of mesons in hydrogen. 940.
- s. Higashi, S. 1178.
- Waterman, H. H. and Volkoff, G. M. Nuclear magnetic resonance spectrum of B^{11} in kernite. 1212.
- Waters, G. S. Measurement of the earth's magnetic field by nuclear induction. 1910.
- Watson, E. J. Boundary-layer growth. 17.
- , H. H. and Mulford, D. F. Particle-profile test strip for assessing the accuracy of sizing irregularly shaped particles with a microscope. 2191.
- , John H. L. s. Preuss, L. E. 1686.
- , K. M., Keck, J. C., Tollstrup, A. V. and Walker, R. L. Partial wave analysis of the experimental photomeson cross section. 2354.
- s. Frank, R. M. 1604.
- s. Takeda, Gyo. 421.
- , P. E. Protective cover for a stop watch. 542.
- , W. R., Dropkin, H. J. and Halpin, A. T. Electroluminescence in ZnS single crystals. 1071.
- , W. W. s. Schwart, R. B. 1770, 2367.
- Watt, James R. and Surtees, Walter J. Impedance of a top-loaded antenna of arbitrary length over a circular grounded screen. 2184.
- , W. s. Brown, A. R. G. 1856.
- Wattenberg, A. s. Feld, B. T. 398, 2016.
- s. Guernsey, Janet B. 1379.
- s. Odian, A. C. 953, 1146.
- s. Osborne, L. S. 941.
- s. Ritson, D. M. 1994.
- s. Weinstein, R. M. 1542.

- Watters, James I. Manual instrument for rapid precision polarography. 2156.
- and Loughran, E. Dan. Spectrophotometric investigation of a mixed complex ion formed by copper (II) ion with pyrophosphate ion and ethylenediamine. 2408.
- Watteville, Henry de s. Clément, Alex. 1936.
- Watts, B. N. s. Milner, C. J. 2134.
- H. s. Alder, B. J. 1111.
- , Richard J. s. Milligan, Morris F. 1266.
- Waymouth, J. F. and Bitter, F. Analysis of the plasma of fluorescent lamps. II. 1442.
- s. Bitter, F. 840, 1442.
- s. Butler, K. H. 2539.
- Weale, J. W. Alpha-gamma angular correlations and internal conversion measurements in ThCC'' and ThC'D . 2361.
- Weatherly, T. L. and Williams, Quitman. Pure quadrupole spectra of some nitrochlorobenzenes. 1422.
- Nuclear quadrupole resonance in ethyl chloroformate and ethyl trichloroacetate. 1643.
- , Davidson, E. H. and Williams, Quitman. Pure quadrupole spectrum of hexachlorobenzene. 101.
- s. Williams, Quitman. 1778.
- Weaver, A. B. s. Orear, Jay. 423.
- , C. H. s. Russell, D. W. 907.
- , Frank D. Scale and reading errors of electrical indicators. 1420.
- , H. E. s. Bumiller, F. 2380.
- s. Hornig, A. W. 1847.
- , J. T. s. Currie, B. W. 2242.
- Webb, C. G. and Rajaratnam, A. Water vapour recorder for equatorial use. 2332.
- , F. s. Goldhaber, Gerson. 1336.
- , Francis H., Chupp, Warren, W., Goldhaber, Gerson and Goldhaber, Sulamith. Ratio of K^- mass to K^+ mass. 2353.
- s. Chupp, Warren, W. 1522, 1756.
- , J. H. Ultra-short light-and-voltage pulses applied to silver-halide crystals by turbine-driven mirror and electrical contacts. 1226.
- , L. A. and Johnson, R. F. Effect of temperature upon the scintillation efficiency of NaI(Tl) . 1123.
- s. Graves, J. D. 229.
- , R. A. s. Langford, F. L. 631.
- , T. S., Hagedorn, F. B., Fowler, W. A. and Lauritsen, C. C. Elastic scattering of protons by F^{19} . 601.
- Webb, T. S., Hagedorn, F. B., Fowler, W. A. and Lauritsen, C. C. Elastic scattering of protons by F^{19} . 1588.
- , W. s. Cutler, W. G. 375.
- s. Lowitz, D. A. 374.
- Webber, D. S. Polarized infrared absorption spectrum of gypsum. 1826.
- , R. T. s. Spohr, D. A. 1851.
- , S. E. s. Rich, J. A. 1675.
- , William R. and McDonald, Frank B. Determination of the intensities of low-Z components of the primary cosmic radiation at $\lambda = 41^\circ$ using a Čerenkov detector. 2398.
- Weber, R. s. Allen, G. 1795.
- s. Barile, S. 386, 415.
- , R. W. s. Schwed, P. 1872.
- Weber, Alfons, Ferigle, Salvador M. and Cleveland, Forrest F. Infrared spectrum of dimethyltriacetylene. 433.
- s. Ferigle, Salvador M. 2308.
- , A. H. Neutron diffraction. 2205.
- s. Bryant, P. J. 1536.
- s. Deshotels, W. J. 467.
- s. Doerner, R. K. 1372.
- s. O'Friel, Z. 1372.
- , G. Dependence of the polarization of the fluorescence on the concentration. 330.
- , Heinrich E. Methodik der Berechnung von Regulierungen — Servotechnik. 544.
- , J. Fluctuation dissipation theorem. 11.
- Quantum theory of the radiation resistance. 1295.
- Quantum theory of a damped electrical oscillator and noise. I. II. Radiation resistance. 1666.
- Vacuum fluctuation noise. 1667.
- , James H. Vapor-liquid equilibria for system methyleyclohexane-toluene at subatmospheric pressures. 2322.
- , Joseph s. Shuler, Kurt E. 30.
- , Marvin J. s. Brode, Robert B. 1344.
- , Wolf. Darstellung der Temperaturabhängigkeit der Viskosität von Mineralölen durch Interpolationsformeln. 1901.
- Systematische Untersuchung des Fallkugelsonometers mit geneigtem Fallrohr. 1942.
- Webley, R. S., Lubszynski, H. G. and Lodge, J. A. Half-tone charge storage tubes. 682.

- Webster, Stewart H. s. Liljegren, Erwin J. 2230.
- , W. M. s. Johnson, E. O. 1676.
- s. Moore, A. R. 132.
- s. Stone, R. P. 2518.
- Wedaa, Henry W. s. Kretschmar, George G. 19.
- Weddel, J. s. Jennings, B. 959.
- Weddell, J. B., Jennings, B. and Hellens, R. L. Scattering of 4.4 Mev neutrons by C, Ca, Fe and Zr. 1595.
- Wedepohl, P. T. s. Dyer, H. B. 1861.
- Weeber, Helmut s. Möller, Hermann. 1472.
- Weekes, K. and Stuart, R. Ionospheric propagation of radio waves with frequencies near 100 kc/s over short distances. 1913.
- — Ionospheric propagation of radio waves with frequencies near 100 kc/s over distances up to 1000 km. 1913.
- Weertman, J. and Salkovitz, E. I. Internal friction of dilute alloys of lead. 509.
- Wegener, H. s. Fleischmann, R. 1065.
- s. Lohmann, A. 1065.
- , Kurt. Registrierung der Energie-Verteilung im Sonnen-Spektrum. 1695.
- , Peter P. Water vapor condensation process in supersonic nozzles. 2294.
- Wegmann, L. Trüb, Täuber-Elektronenmikroskop. 1259.
- Wegner, H. E., Eisberg, R. M. and Igo, G. Elastic scattering of 40-Mev alpha particles from heavy elements. 1587.
- s. Bloom, S. D. 1383.
- s. Eisberg, R. M. 1535, 1796, 2033.
- s. Igo, G. 1167, 1791.
- , Harvey E., Eisberg, R. M. and Igo, G. Elastic scattering of 40-Mev alpha particles from heavy nuclei. 1587.
- Wehner, Gottfried K. Controlled sputtering of metals by low-energy Hg ions. 2047.
- Wehrmüller, J. s. Brenner, M. 873.
- Weibel, Erich S. Strains and energy in thin elastic shells of arbitrary shape for arbitrary deformation. 1951.
- Weickmann, Helmut. Observational data on the formation of precipitation in cumulonimbus clouds. 528.
- Weicksel, J. A. s. Judson, C. M. 1187.
- Weidemann, Volker. Informationsgehalt physikalischer Messungen. 1933.
- Weidenmüller, Hans-Arwed. Vergleich von lokalisierten Funktionen und ebenen Wellen für Elektronen mit Wechselwirkung. 1300.
- Weigand, A. Berechnung der Grundschwingungszahlen von Spiralfedern. 372.
- Weigert, Alfred. Ionisationszustand des interstellaren Gases. 1698.
- , K. M. Fließtemperaturen der Silber-Kadmium-Zink-Hartlote. 339.
- Weil, John A. s. Nachtrieb, Norman H. 2426, 2426.
- , K. s. Franck, U. F. 2218.
- , K. G. Beziehung zwischen Ionenstrom und Spannung innerhalb der Oxydschicht auf passivem Eisen. 659.
- , René s. Monier, Jean Claude. 1007.
- Weiler, A. Gerät zur Messung mechanischer Schwingungen. 2281.
- Weill, A. R. s. Nomarski, G. 865.
- , J. s. Brière, M. 347.
- , Jacky s. Bonnaure, Pierre. 1330.
- , R. s. Rosslet, Ph. 1999.
- Weimer, D. s. Skulski, R. W. 376.
- Weinberg, F. J. Significance of reactions of low activation energies to the mechanism of combustion. 1512.
- Shadowgraph of a flat flame. 1744.
- , Isabella Goldin and Cohen, E. Richard. Neutron-flux distribution from a thermal-column face. 2347.
- , J. G. s. Bennett, J. A. 2546.
- Weineck, Hans. Strömung und Wärmeübergang an rotierenden Übertragungsflächen. 2312.
- Weiner, E. V. and Peterson, R. E. G-M well counter for determining activity in large volumes. 1691.
- , J. H. Transient heat conduction in multiphase media. 748.
- Weingärtner, Fr. s. Kangro, W. 832.
- Weinmann, A. Inequalities for molecular integrals. 723.
- , J. A., Cameron, J. R. and Herb, R. G. Negative hydrogen ion source. 1125.
- Weinreb, A. s. Cohen, S. G. 2540.
- , Stanley and Harman, John W. Cytochondria and myofibril interrelationships in pigeon breast muscle. 2223.
- Weinreich, Gabriel and Hughes, Vernon W. Hyperfine structure of helium-3 in the metastable triplet state. 429.
- Weinstein, Alfred s. Nielsen, Edward. 115.
- , R. Deutsch, M. and Brown, S. Fine structure of positronium. 1129.
- , Roy s. Odian, Allen. 1146.
- , R. M., Odian, A., Stein, P. C. and Wattenberg, A. Photoproton-proton coincidences from various nuclei. 1542.

- Weinstein, W. Light distribution in the image of an incoherently illuminated edge. 1682.
- s. Dobrowolski, J. A. 1466.
- , Walter. Astigmatism of skew pencils in optical systems containing toric surfaces. 2531.
- Weinstock, Bernard s. Abraham, Bernard M. 1196.
- , E. V. and Halpern, J. Bremsstrahlung spectrum from the internal target of a 22-Mev betatron. 2038.
- , S. E. s. Rapaport, E. 2099.
- Weintraub, Murray. Flow of fluids. 1104.
- Weinzierl, Peter. Herstellung linearer RaDE-Präparate aus hochgereinigter Radiumemanation. 238.
- , Peter s. Tisljar-Lentulis, Georg. 2382.
- Weir, R. J. s. Brown, J. F. 1894.
- Weis, E. Elektronik in der Meß- und Regeltechnik der chemischen Industrie. 191.
- Weise, Herbert. Nomogramm mit geradlinigen Trägern für projektive Transformationen und seine Anwendung in der Farbmetrik. 2555.
- Weiss, Albert s. Huntoon, R. D. 857.
- , A. A. Diffusion coefficients from the rate of decay of meteor trails. 1481.
- , D. E. Modified activated carbon adsorbents for continuous fractional adsorption. 458.
- , Gerald. Trouble shooting in advance by proper wiring design. 275.
- , H. Situation actuelle du problème des huiles isolantes. 676.
- Bestimmung der effektiven Massen in InSb und InAs aus Messungen der differentiellen Thermospannung. 1222.
- , J. and Bernstein, W. Energy required to produce one ion pair for several gases. 1393.
- s. Bernstein, W. 173.
- s. Daniels, M. 1276.
- s. Rigg, T. 1068.
- , Jerome s. Cowan Frederick P. 2230.
- , Joseph. Effets chimiques dus à l'excitation par les électrons secondaires produits par les rayonnements ionisants. 611.
- s. Kelly, Patrick. 985.
- s. Offord, A. C. 458.
- , M. T. s. Fox, A. G. 2178.
- , P. R. s. Slonczewski, J. C. 1649.
- Weiss, R. J. s. Antal, J. J. 1194.
- Weisskopf, V. F. Phase transitions in atomic nuclei. 1138.
- Weissler, G. L. and Maudlin, L. Z. Absorption of vacuum ultraviolet radiation by thin plastic films. 1886.
- s. Ehler, A. W. 1048.
- s. Lee, Po. 1885, 2051.
- s. Wainfan, N. 996, 1685.
- s. Walker, William C. 149, 788, 846.
- Weissman, S. I., Townsend, J., Paul, Donald E. and Pake, G. E. Hyperfine splittings in the paramagnetic resonances of free radicals. 122.
- Weisz, P. B. Effects of electronic charge transfer between adsorbate and solid on chemisorption and catalysis. 2445.
- Weitz, H. M. s. Bartholomé, E. 1836.
- Weitzenmiller, Franz. Elektronenstrahl-Ferroskop, seine Aufgabe und Wirkungsweise. 1267.
- Weizel, W. and Meister, G. Bestimmung spektraler Strukturen durch Messung des Interferenzkontrastes. 1062.
- *—, Walter. Lehrbuch der theoretischen Physik. I. Physik der Vorgänge. Bewegung. Elektrizität. Licht. Wärme. 1917.
- Wekua, I. N. Beweis für die Eindeutigkeit der Lösung einer stationären Schwingungsaufgabe. 648.
- Welber, B. and Rosenbaum, B. M. State of order of Cd-poor MgCd_3 . 1997.
- , Benjamin. Effect of the superconducting transition on the internal friction of tin. 1215.
- Welch, A. J. E. s. Ludekens, W. L. W. 1005.
- , P. s. Rowe, E. G. 1454.
- Welchelm, W. s. Kirchner, F. 944.
- Welker, H. Optical and electrical properties of GaAs, InP and GaP. 290.
- s. Gremmelmaier, R. 1982.
- s. Madelung, O. 128.
- , Joan P. and Perlman, M. L. K-capturepositron ratios for the first-forbidden transitions of Rb^{84} and the relative probabilities of L- and K-electron capture. 1563.
- s. Perlman, M. L. 1564.
- s. Schardt, A. W. 1558.
- Weller, C. E. and Grosskreutz, J. C. Gamma rays from the proton bombardment of Cu-63 and Cu-65. 1789.
- , Sol s. Manes, Milton. 2325.
- Wellmann, P. Bedeckungsveränderliche EE Pegasi. 350.

- Wells, Cyril. Quench cracks in wrought steel tubes. 2549.
- , F. H. Fast pulse circuit techniques for scintillation counters. 228.
- , H. W. F-scatter at Huancayo, Peru, and relation to radio star scintillations. 525.
- , R. A. s. Burstall, F. H. 369.
- Welsh, H. L., Stansbury, E. J., Romanko, J. and Feldman, T. Raman spectroscopy of gases. 2056.
- s. Allin, Elizabeth J. 636.
- s. Chisholm, D. A. 253.
- s. Gaizauskas, V. 623.
- s. Hare, W. F. J. 1827.
- Welton, T. A. Possible convergence of the mass renormalization. 1715.
- *Weltraumforschung, Probleme der. 2256.
- Welz, St. s. Ergang, R. 336.
- Wemelle, Robert. Corrélation entre les propriétés tenso-actives et diélectriques des alcoylsulfates de sodium. 1840.
- Wende, H. s. Hintenberger, H. 555.
- Wendel, Georg und Richter, Gisela. Photo-leitfähigkeit von Borsäure. 2478.
- , W. Perfusion studies employing α -C¹⁴ acetate to study the synergistic effect of cortisone and insulin on lipogenesis. 873.
- Wendt, G. Pouvoir séparateur du conventionnel d'images à champs homogènes électrostatique et magnétique. 1043.
- Première focalisation d'un photomultiplicateur pour comptage de scintillations. 2341.
- Weneser, J. s. Church, E. L. 1160.
- s. Scharff-Goldhaber, Gertrude. 589, 1362.
- Went, J. J. s. Zolinger, J. J. van. 1979.
- Wentzel, G. A⁰ binding in light nuclei. 1520.
- , Gregor. Skalare Paartheorie. 364.
- Branching ratios in hyperon and heavy-meson decays. 1520.
- Heavy-meson decays and the selection rule $|\Delta I| \leq 1/2$. 2353.
- Wenzel, F. Potentiometrische maßanalytische Methoden im Fabrikationsprozeß von Photoemulsionen. 2534.
- , William A. s. Brabant, John M. 1529.
- , W. A. s. Cork, Bruce. 2036.
- Wepner, Wolfgang s. Houdremont, Eduard. 1268.
- Wergunass, F. I. und Gasting, N. L. Abklinggesetz des Nachleuchtens von Zinksulfidphosphoren auf dem Gebiet der Temperatúrauslöschung. 330.
- Werme, J. V. s. Stergis, C. G. 711.
- Werner, G. K., Smith, D. D., Ovenshine, S. J., Rudolph, O. B. and McNally, J. R. jr. Investigations in the spectroisotopic assay technique for lithium. 1535.
- , Otto. Röntgen-Fluoreszenz-Spektralanalyse und ihre Bedeutung für die Metallkunde. 2542.
- , W. Fernschnormen und ihre Konsequenzen für den Empfängerkonstrukteur. 2515.
- Wertz, J. H. jr. s. Fleming, P. J. 1197.
- Wert, C. s. Ang, C. 509, 2541.
- s. Sivertsen, J. 1473.
- Wertheim, M. S. and Igo, G. Isotope shift in the X-ray spectra of heavy elements. 1807.
- s. Igo, G. 429.
- Werther, Walter von und Schmitt, Ottobans. Trägerfrequenz-Fernsprechsystem für 960 Kanäle. 2502.
- Wertz, John E. and Vivo, Juana L. Electron spin resonance of defect centers in magnesium oxide. 1645.
- and Musulin, Boris. Electron spin resonance of impurities in magnesium oxide. 1848.
- Wertz, R. s. Riezler, W. 1976.
- Wesenberg, Clarence L. s. Lynch, Frank J. 463.
- Wesp, Adam. Viskosimetrisches Verfahren zur Bildung des Produktes zweier Meßgrößen mit fortlaufender zeitlicher Summation. 1941.
- Wessel, W. Quantum electrodynamics and the mass operator. 365.
- West, C. D. Number of X-ray diffraction groups. 103.
- Electro-optic and related properties of crystals with the zinc blende structure. 2200.
- , D. and Rothwell, P. Proportional counters in a magnetic field: isomerism of Br⁸⁰ and measurement of the fluorescence yield of krypton. 1975.
- , Batchelor, R. and Bradley, E. F. Detection of mesic X-rays with pressurized proportional counters using cosmic ray μ -mesons stopped in carbon. 224.
- , Dawson, J. K. and Mandlberg, C. J. Investigation of soft radiations from ²³⁹Pu and ²³³U with a proportional counter. 2030.

- West, E. J. s. Liebson, S. H. 1891.
 —, G. W. s. Clarebrough, L. M. 374.
 —, John C. and Douce, John L. Mechanism of sub-harmonic generation in a feedback system. 1667.
 — and Nikiforuk, P. N. Response of remote-position-control systems with hard-spring non-linear characteristics to step-function and random inputs. 1501.
 —, R. Low-energy gamma-ray sources. 2372.
 — Isotope handling calculator. 2372.
 — s. Plessner, K. W. 1051.
 —, W. and Saunders, V. I. Photographic effects in single crystals of silver bromide. 1467.
 Westcott, C. H. s. Bain, W. C. 1914.
 —, Carl H. Specification of neutron flux and nuclear cross-sections in reactor calculations. 1987.
 Westendorf, W. F. s. Gurewitsch, A. M. 906.
 Westerhausen, H. Ortung mikroseismischer Unruheherde. 2567.
 Westervelt, D. R. Reversibility of the additive coloring reaction in KCl. 446.
 Westfold, K. C. Collisional effects and the conduction current in an ionized gas. 2165.
 Westheimer, Gerald. Spherical aberration of the eye. 698.
 Westmijze, W. K. Magnetic recording. 743.
 — Application of the reciprocity theorem to magnetic reproducing heads. 743.
 Westpfahl, Konradin. Wirkungsquerschnitt und Sammlungsvermögen einer Potentialschale in einem Teilchenstrom. 98.
 — Strenge Theorie der Beugung elektromagnetischer Wellen an ebenen Schirmen. 150.
 —, H. Elektromikroskopische Beobachtung von NaCl-Oberflächen nach Einwirkung eines trachtändernden Fremdstoffs. 1202.
 —, W. C. s. Haynes, J. R. 2131.
 —, Wilhelm H. Physikalisches Institut der TU Berlin. 535.
 Westrik, R. Lattice parameters and Curie points of unreduced iron catalysts. 121.
 Westwater, J. W. s. Kraemer, H. F. 2307.
 Wetherill, G. W., Aldrich, L. T. and Davis, G. L. Potassium-argon ages of lepidolites. 1750.
 —, George W. Variations in the isotopic abundances of neon and argon extracted from radioactive minerals. 1768.
 Wetjen, K. A. Wärmeübergang bei Filmkondensation strömenden, lufthaltigen Wasserdampfes am senkrechten Rohr. 1111.
 Wette, F. W. de and Slawsky, Z. I. Influence of permanent multipole interactions on vibrational deactivation in molecular collisions. 1623.
 Wettstein, A. s. Kahnt, F. W. 873.
 Wetzel, J., Barthès, E. et Beziue, M. Etudes expérimentales sur l'éclairage des locaux rectangulaires à parois diffusantes. 690.
 Wever, F. s. Krisement, O. 868.
 —, Franz und Schrader, Angelica. Elektronenmikroskopische Untersuchung der Gefügeveränderungen eines Chrom-Nickel-Molybdän-Stahles unter langzeitiger Zugbeanspruchung bei 500°. 1269.
 —, Krusch, Alfred und Wiester, Hans-Joachim. Veränderungen im Gefügebau von Chrom-Nickel-Molybdän-Stählen bei langzeitiger Beanspruchung im Zeitstandversuch bei 500°. 1269.
 —, H. und Seith, W. Elektrolyse fester metallischer Phasen. 1041.
 Wexler, A. s. Corak, W. S. 127, 922.
 —, Arnold, Garfinkel, Samuel B., Jones, Frank E., Hasegawa, Saburo and Krinsky, Albert. Fast responding electric hygrometer. 2332.
 —, Aaron s. Satterthwaite, C. B. 1023.
 —, S. s. Goodman, L. S. 1347, 1348, 1790, 1806.
 Wey, R. s. Goldstaub, S. 113, 2422.
 Weyerer, Hermann. Vakuum-Thermostat für Röntgenfeinstrukturkammern. 694.
 — Präzisionsbestimmung von Gitterkonstanten. 2066.
 — Strukturuntersuchung an flächenhaften Proben in einer kleinen Zylinderkamera. 2212.
 — Präzisionsbestimmung von Gitterkonstanten. 2417.
 Weygand, Friedrich und Grisebach, Hans. Anwendung von Isotopen in der organischen Chemie. 2344.
 —, Klebe, Hans. Trebst, Achim und Simon, Helmut. Stoffwechseluntersuchungen

- bei Mikroorganismen mit Hilfe radioaktiver Isotope. V. Umwandlung von Xanthin und Hypoxanthin in Guanin und Adenin durch *Lactobacillus leichmannii*. 2551.
- Weyl, Hermann †. 1489.
- Weyzen, W. W. H. s. *Bungenberg de Jong*, H. G. 809.
- Whale, H. A. Effective tilts of the ionosphere at places about 1000 km apart. 2244.
- Whaley, R. M. s. *Matheson*, W. E. 1774.
- Whalin, E. A. and Reitz, R. A. Liquefied gas X-ray target. 775.
- , *Schrieffer, Barbara Dwight* and *Hanson*, A. O. Photodisintegration of deuterium by 60-to 250-Mev X-rays. 1544.
- , jr. Photodisintegration of deuterium by 165-Mev X-rays. 1353.
- Whaling, Ward s. *Pattet*, D. M. van. 766.
- s. *Pixley*, R. E. 1797.
- s. *Thirion*, Jacques. 573.
- Whealon, Albert D. Single-meson production in nucleon-nuclei collisions. 2003.
- Wheatley, G. H. s. *Hrostowski*, H. J. 1860, 2130.
- , J. C., *Griffing*, D. F. and *Hill*, R. D. Ratio of magnetic moments of Co^{58} and Co^{60} . 1767.
- , *Huiskamp*, W. J., *Diddens*, A. N., *Steenland*, M. J. and *Tolhoek*, H. A. Circular polarization of gamma radiation, emitted by oriented ^{60}Co nuclei. 2358.
- Wheatstone, S. s. *Stork*, D. 1524.
- Wheeler, C. M. jr. s. *Haendler*, H. M. 800.
- , D. J. s. *Wall*, F. T. 1200.
- , *John A.* Scattering and potential. 244.
- , *John Archibald*. Geons. 1713.
- , L. K. s. *Carter*, R. O. 1879.
- , M. S. Tunable temperature-compensated reference cavity with separate tuning and compensating mechanisms. 1665.
- , R. G., *Blakewood*, C. H. and *Lane*, C. T. Second sound attenuation in rotating helium. II. 1828.
- s. *Lane*, C. T. 1196.
- Whealon, A. D. Near-field corrections to line-of-sight propagation. 2508.
- and *Muchmore*, R. B. Line-of-sight propagation phenomena. II. Scattered components. 2508.
- Whealon*, A. D. s. *Muchmore*, R. B. 2507.
- Whetstone*, S. and *Stork*, D. Scattering of 22-Mev positive pions on protons. 1601.
- , *Stanley L. jr.* and *Stork*, Donald H. Scattering of 22-Mev positive pions by protons. 2395.
- Whiffen*, D. H. Force field, vibration frequencies, normal co-ordinates, infrared and Raman intensities for benzene. 1620.
- White*, A. G. Transistor as a thermometer. 478.
- s. *Hutchinson*, W. P. 1303.
- , D. F., *Campbell*, I. G. and *Payne*, P. R. Estimation of radioactive hydrogen (tritium). 2338.
- , F. A., *Collins*, T. L. jr. and *Rourke*, F. M. Naturally occurring isotope of tantalum. 401.
- , *Collins*, T. L. and *Rourke*, F. M. Mass spectrometric search for naturally occurring isotopes of low abundance. 1349.
- , G. K. s. *Carver*, J. H. 223.
- s. *Kemp*, W. R. G. 1022, 1317.
- s. *MacDonald*, D. K. C. 1851.
- s. *Mendelssohn*, K. 2075.
- , *Harrison C.* Quantum-mechanical calculation of inter-atomic force constants in copper. 10.
- , *John U. s. Pilston*, Robert G. 1063.
- , L. D. g factor of the electron in the 2 S state of hydrogen. 1396.
- , *Marsh W.* Employment of physicists by the department of the army. 1917.
- Enrollments and degrees awarded to physics majors. 1919.
- , R. L. and *Townes*, C. H. Spin of Si^{29} and mass ratios of the stable Si isotopes. 435.
- , *Robert L.* Magnetic interactions in Σ -molecules. 1404.
- , R. *Stephen*, *Gilbert*, F. C. and *Violet*, Charles E. Negative K-particle interactions in nuclear emulsion. III. 1758.
- , *Jakobson*, Mark J. and *Repp*, Gordon W. π^+ photomeson production at 180° . Experimental results. 1341.
- — — π^+ photomeson production at 143° . 1525.
- s. *Gilbert*, F. C. 1758.
- s. *Iloff*, Edwin L. 2353.
- s. *Repp*, Gordon, W. 1341.
- s. *Violet*, Charles E. 1758.
- , W. s. *Randles*, J. E. B. 666.

- White, W. C. Electric device to detect leaks of inflammable gases. 1501.
 — Electrical hygrometer. 2332.
 Whitehead, C. s. Hird, B. 62.
 —, M. N. s. Birge, R. W. 1337, 1755.
 — s. Kerth, L. T. 1336.
 —, S., Larose, P. and Isard, J. O. Orientation of fibres in an electric field. 2085.
 Whitehouse, M. J. and Galbraith, W. Energy spectrum of fragments from the spontaneous fission of natural uranium. 2020.
 — s. Galbraith, W. 2013.
 Whitfield, G. R. s. Elsmore, B. 1481.
 Whitley, S. s. Benzie, R. J. 817.
 — s. Cooke, A. H. 279.
 Whitlock, W. S. s. Mapleson, W. W. 1914.
 Whitman, Charles I. Accuracy of the Knudsen effusion method for measuring vapour pressures. 2318.
 Whitmore, E. J. s. Pringle, D. H. 1210.
 —, R. L. s. Maude, A. D. 2287.
 Whitsett, C. R. and Danielson, G. C. Electrical properties of the semiconductors Mg_2Si and Mg_2Ge . 1434.
 Whittaker, A. s. Batchelor, R. 2038.
 — s. Duckworth, J. C. 1982.
 —, J. W. Precision electrodynamicometer standard and a c./d. c. transfer instrument. 2099.
 Whittemore, W. L. s. Block, M. M. 938, 1753.
 — s. Eisberg, L. M. 979.
 — s. Fowler, W. B. 45, 1135.
 — s. Morris, T. W. 1375.
 Whitton, W. I. and Young, D. M. Thermodynamics of adsorption. 926.
 Whyard, R. E. s. Cooke-Yarborough, E. H. 2221.
 Whyte, G. N. Measurements of spectral and angular distributions of secondary gamma-rays in matter. 246.
 Density effect in γ -ray measurements. 875.
 — s. Garrett, C. 91.
 — s. Ghosh, A. 2362.
 — s. Michel, W. S. 2557.
 —, L. L. Velocities of fundamental particles. 2350.
 Whytlaw-Gray, R. s. Reeves, C. G. 1319.
 Wiberley, Stephan E. s. Quinan James R. 1619.
 Wichers, Edward. Committee on Atomic Weights of the American Chemical Society. 2337.
 Wichert, Gerhard. Leistungsfähigkeit des Wismutbolometers. 210.
 Wichmann, Eyvind and Kroll, Norman M. Vacuum polarization in a strong Coulomb field. 540.
 Wicke, E. und Eigen, M. Raumbedarf und Aktivitätskoeffizienten starker Elektrolyte in wäßriger Lösung. 2140.
 — — Einfluß des Raumbedarfs von Ionen in wäßriger Lösung auf ihre Verteilung im elektrischen Feld und ihre Aktivitätskoeffizienten. 2481.
 Wickersham, P. D. s. Goland, Martin. 14.
 Wickert, Helmut s. Dietzel, Adolf. 2429.
 —, Kurt und Wiehr, Hartmut. Evans-Elemente. 1865.
 Wicklatz, J. E., Kennedy, T. J. and Reynolds, W. B. Hydroperoxydes as initiators of emulsion polymerisations at low temperatures. 450.
 Wicklund, John S. s. Masi, Joseph F. 2308.
 Wideröe, Rolf. Moderne Teilchenbeschleuniger. I. 2344.
 Widgoff, M. s. Fournet, D. M. 2396.
 — s. Hill, R. D. 45, 1335, 1755.
 — s. Iloff, Edwin L. 2353.
 — s. Ritson, D. M. 1995.
 Widmer, H. s. Glättli, H. 1972.
 Widom, B. Inelastic molecular collisions near the threshold 1606.
 — Virial expansion of the ideal Bose-Einstein gas. 2745.
 Widorn, Thomas. Entfernung des Veränderlichen Sternes R Coronae australinae. 1483.
 idule, W. s. Hicks, B. L. 434.
 Wiedemann, Malene s. Leube, Inge. 871.
 Wieden, P. und Baldwin, H. Gasadsorption an Bentoniten. 2447.
 Wiedenbeck, M. L. s. Beard, George. 765.
 s. Scharenberg, R. P. 1582.
 s. Stewart, M. G. 1555.
 Wieder, H. H. Electrical behavior of barium titanate single crystals at low temperatures 1869.
 Wiedling, T. Angular correlation of Ni^{60} . 597.
 Wiegand, C. s. Chamberlain, O. 85, 1759, 2003.
 s. Tripp, R. 973.
 s. Ypsilantis, T. 976.
 Wiehr, Hartmut s. Wickert, Kurt. 1865.
 Wiel, A. van der and Aten, A. H. W. jr. Ruthenium 94. 2024.
 Wieland, Heinrich. 182.

- Wielandt, Helmut. Pairs of normal matrices with property L. 895.
- Wienecke, R. Verhalten abgeschalteter Lichtbögen hoher Stromstärke. 672.
- Geschwindigkeitsfeld der Hochstromkohlebogensäule. 673.
- Wiener, B. and Groetzinger, G. Variation of magnetoresistivity and resistivity of AuCu during annealing from the cold-worked and thermally-disordered states. 510.
- †, E. s. Hofstadter, R. 88.
- , Norbert and Siegel, Armand. Joint probabilities and transition probabilities in differential-space quantum theory. 5.
- s. Siegel, Armand. 1924.
- Wieninger, E. und Lintner, K. Bestimmung der absoluten Neutronenausbeute von Radon-Beryllium-Quellen. 232.
- Wiesner, R. und Groschwitz, E. Temperaturabhängigkeit des Photostromes in pn-Übergängen. 130.
- Wiester, Hans-Joachim s. Houdremont, Eduard. 1268.
- s. Wever, Franz. 1269.
- Wiewall, Miguel jr. Observations of ionospheric drifts over Puerto Rico. 1914.
- Wiggins, J. S. s. Forster, H. H. 771, 1369.
- , T. A. s. Jaffe, J. H. 854, 1619, 1882.
- Wightman, A. S. and Hall, D. Universal singular functions in local relativistic quantum field theory. 363.
- s. Greenberg, W. O. 365.
- s. Michel, L. 6.
- Wignall, J. W. G. Excitation studies of reactions occurring in the proton bombardment of ^{10}B . 2009.
- Wigner, E. P. Relativistic invariance in quantum mechanics. 2265.
- s. Lane, A. N. 945.
- , Eugene P. Lower limit for the energy derivative of the scattering phase shift. 972.
- Wiig, Edwin O. s. Wagner, Genevieve D. 1537.
- Wijn, H. P. J. s. Burgt, C. M. van der. 2451.
- s. Smit, J. 1270.
- Wijnen, M. H. J. Photolysis of mixtures of acetone- d_6 and diethyl ketone. 1068.
- Wijngaarden, J. G. van and Haan, E. F. de Low frequency noise in electron tubes. C. Electrometer tubes. 2180.
- Wijngaarden, J. G. van and Vliet, K. M. van. Low frequency noise in electron tubes. A. Space charge reduction of flicker effect. 2180.
- — and Leeuwen, C. J. van. Low frequency noise in electron tubes. B. Measurements on triodes under normal operating conditions. 2180.
- Wikner, N. F. s. Bandtel, K. C. 1602.
- Wilcox, John M. and Moyer, Burton J. Nuclear internal momentum distributions. 1168.
- , L. and Drummond, J. E. Plasma oscillations in a static magnetic field. 671.
- s. Drummond, J. E. 1047, 1050.
- , R. H. Microwave correlator. 784.
- , W. S., Brannock, K. C., More, W. de and Goldstein, J. H. Microwave spectrum and general properties of ethylene imine. 434.
- Wild, J. P., Murray, J. D. and Rowe, W. C. Harmonics in the spectra of solar radio disturbances. 876.
- , John J. and Reid, John M. Ultrasonic ranging speeds cancer diagnosis. 2224.
- Wilde, H. Messungen über die reversible Permeabilität und ihre theoretische Deutung. 814.
- , Hans. Vorteile der Gegeninduktivitätsmeßbrücke bei ferromagnetischen Messungen. 273.
- , M. C. de s. Radzitzki, P. de. 1416.
- Wildermuth, K. Energiebreite der Kern- γ -Resonanzen. 60.
- s. Urban, P. 1583.
- , Karl. Born-Oppenheimersche Näherung für die Behandlung von Stoßproblemen. 1583.
- Wiles, Donald R. and Coryell, Charles D. Fission yield fine structure in the mass region 99—106. 407.
- Wilets, Lawrence s. Berg, Roy A. 1532.
- s. Chase, David M. 2376.
- Wilhelm, Johannes. Konstantes Längsfeld in der positiven Säule einer Glimmentladung. 840.
- Wilhelmy, W. s. Kirchner, F. 1347.
- Wilke, C. R. Mass transfer. 727.
- and Lee, C. Y. Estimation of diffusion coefficients for gases and vapors. 755.
- , Klaus-Thomas. Orientierte Ag_2S -Aufwachsungen in Silberaktivierten CdS-Einkristallen. 2477.

- Wilkins, Alexander. Kontinuierliche Wasserstoff-Absorption und Linientiefen des Wasserstoffs in Sternspektren in Beziehung zur absoluten Größe der Sterne. 2562.
- Spectrographische Temperaturbestimmungen von Doppel- und einfachen Sternen des südlichen Himmels. II. 2563.
- Wilkes, A., Hopwood, W. and Peacock, N. J. Mechanism of uniform field breakdown in hydrogen. 2489.
- s. Hopwood, W. 2488.
- , M. V. Thermal excitation of atmospheric oscillations. 2251.
- Wilkie, M. J. Automatic devices for use on tidal models. 1486.
- Wilkins, F. J. and Harkness, S. Electronic supply for use in the calibration of instruments. 811.
- , Homer C. s. *Theoclitus*, Gregory. 385.
- Wilkinson, D. H. Reactions $C^{12}(d, n)N^{13}$ ground state and $C^{12}(d, t)C^{11}$ up to $E_d = 20$ Mev. 1143.
- Isotopic spin selection rules. 1996.
- Lowest state of surface oscillation of O^{16} at 14.7 Mev. 2014.
- Isotopic spin selection rules. VII. Breakdown of the [rules and the situation in ^{16}O . 2380.
- and Clegg, A. B. Isotopic spin selection rules. IV. Radiations from ^{20}Ne . 1159.
- and Lane, A. M. Importance of parentage of nuclear states for nuclear reaction phenomena. 566.
- , Toppel, B. J. and Alburger, D. E. 2-state at 8.87 Mev in O^{16} . 1571.
- s. Jones, G. A. 1361.
- s. Lane, A. M. 566.
- s. Mann, A. K. 588.
- , Toppel, B. J. 1364, 1366.
- , Joseph s. Sheline, Raymond K. 1547.
- , J. H. Electronic computing machines and their uses. 714.
- , Joseph R. and Sheline, Raymond K. Nuclear levels in V^{48} as determined by the decay of Cr^{58} . 1157.
- , M. K., Shull, C. G., Roberts, L. D. and Bernstein, S. Neutron diffraction observations on the superconducting state. 469.
- , Shull, C. G. 694.
- , P. G. Krypton light source for the vacuum ultraviolet. 2532.
- Wilkinson, P. G. and Tanaka, Yoshio. Xenon-light source for the vacuum ultraviolet. 2201.
- , R. G. s. Pruett, C. H. 68, 964, 1365.
- , Roger G. s. Bolotin, Herbert H. 1366, 1550.
- , R. W. et Williams, T. F. Etude partielle de la décomposition par radiolyse des phosphates monoalcoyloxyliques en solution aqueuse. 551.
- Wilks, J. s. Fairbank, Henry A. 632, 1197.
- s. Newell, J. A. 2427.
- s. Niblett, D. H. 2282.
- Willard, D. Momentum of S-particle secondaries. 43.
- s. Bridge, H. S. 44.
- , H. B., Bair, J. K., Kington, J. D. and Cohn, H. O. Elastic scattering of neutrons by Li^6 and Li^7 . 2376.
- s. Bair, J. K. 51, 1563.
- s. Johnson, C. H. 408.
- s. Kington, J. D. 1540.
- , Harvey B., Bair, Joe K. and Kington, Joe D. Elastic scattering angular distributions of fast neutrons on light nuclei. 980.
- Willardson, R. K., Harman, T. C. and Beer, A. C. Application of a three-carrier model to the Hall effect in germanium. 128.
- , Choquard, P. F. and Beer, A. C. Usually large magnetoresistive effects in InSb for specialized boundary conditions. 471.
- s. Harman, T. C. 134, 1035.
- Willett, D. K. s. Hanscome, T. D. 931.
- s. Holmgren, H. D. 950.
- Williams, Albert C. and Emrich, Raymond J. Mass flow in the shock tube. 916.
- , Albert J. s. Bozorth, R. M. 2456.
- , A. O. jr. Two-electron self-consistent field. 1498.
- , Anne P. s. Tolansky, S. 14.
- , Betty E. s. Gillham, E. J. 640.
- , Dudley s. Brown, L. Carlton. 2106.
- s. Geusic, Joseph E. 278.
- s. Sloan, Raymond. 1916.
- s. Ting, Yu. 1423, 1846.
- s. Wolfe, Peter N. 436.
- , D. B., Haskin, D. M., Koshiba, M. and Schein, Marcel. Capture of K^- -meson with emission of high-energy electron as the only visible prong. 2000.
- s. Haskin, D. M. 1993.

- Williams, D. R. W. and Davies, R. D. Measurement of the distance of radio stars. 2235.
- s. Davies, R. D. 1483.
- , D. V. P. and Callihan, Dixon. Resolving time of Geiger-Mueller counters. 622.
- , E. F. s. Siegel, L. A. 2068.
- , E. S. Directional scintillation counters of improved sensitivity. 1978.
- s. Tait, J. F. 1989.
- , E. W. and O'Neill, H. Electron micrographs of crystal boundary and sub-boundary structures in steels and ingot irons. 2541.
- , F. E. s. Prener, J. S. 1470.
- , Ferd E. Theoretical basis for light-amplifying phosphors. 1262.
- s. Johnson, Peter D. 863.
- , F. E. s. Piper, W. W. 1071, 1265.
- , G. C. s. Jones, F. Llewellyn. 2489.
- , Gael M. s. Vermeulen, Theodore. 1014.
- , H. Bartel s. Hatch, Albert, J. 841.
- , I. R. s. Johns, M. W. 1562.
- , John H. and Rasmussen, Stanley W. Elastic scattering of 9.76-Mev protons by helium. 975.
- Scattering of 9.76 Mev protons by He^4 . 1375.
- , L. C. s. Wales, M. 1935.
- , M. C. s. Mador, I. L. 445, 1623.
- , N. T. s. Johnson, J. B. 905.
- , Quitman and Weatherly, T. L. Microwave spectrum of nitrosyl bromide. 1778.
- s. Weatherly, T. L. 101, 1422, 1643.
- , Robley C. and Kallman, Frances. Examination of tissue-cultured hela cells by electron microscopy of serial sections. 1902.
- , Ross, Rainwater, James and Pevsner, Aihud. 78-Mev π^\pm meson scattering from lithium. 1603.
- , Baker, Winslow, Pevsner, Aihud and Rainwater, James. Elastic scattering of pi mesons from nuclei. I. 1385.
- , R. E. s. Baker, W. F. 1385.
- , Ross E. s. Pevsner, Aihud. 2039.
- , R. L. Intensities of the infrared bands of carbon suboxide. 1814.
- , R. W. s. Altman, L. 249.
- s. Parker, G. M. 1292.
- , Robert W. Nuclear size and cross sections at cosmic-ray energies. 991.
- High-energy cross sections. I. Size of the nucleus. II. Nucleon-nucleon cross section at cosmic-ray energies. 1381, 1382.
- Williams, Robert. W., Russell R. jr. s. Hamill, William H. 58.
- , T. F. s. Amphlett, C. B. 1180.
- s. Wilkinson, R. W. 551.
- , W. E. Diffraction by a cylinder of finite length. 1955.
- Williamson, A. G. Frequency shift keying and radio teleprinter systems. 2515.
- , D. Precision dynamic balancer (for small gyroscopes). 1501.
- , E. M. s. Flint, H. T. 1717.
- , G. K. and Moore, A. Precision high-temperature specimen chamber for an X-ray diffractometer. 1820.
- and Smallman, R. E. X-ray extinction and the effect of cold work on integrated intensities. 256.
- Dislocation densities in some annealed and coldworked metals from measurements on the X-ray Debye-Scherrer spectrum. 800.
- , J. W. Induction heating of steel. 2274.
- , R. s. Florida, C. D. 222.
- , R. M. and Jones, K. W. Study of Li^7 (p, p'/ γ) and Li^7 (p, γ) reactions. 1542.
- s. Cox, S. A. 239.
- Willigen, P. C. van der und Defize, L. F. Bestimmung der Tropfengröße bei Lichtbogenschweißung aus Zeitlupenaufnahmen. 512.
- Willman, B. T., Brock, J. E., Sibbitt, W. L. and Hawkins, G. A. Measurement of gun barrel temperatures. 20.
- Willmott, J. C. s. Broude, C. 2377.
- s. Cartwright, D. K. 2382.
- s. Green, L. L. 241, 2025.
- Wilms, W. Schallimpedanz. 2298.
- Wilman, H. s. Evans, D. M. 1728.
- Wilmot, P. D. s. Baxter, S. 2167.
- Wiloth, F. s. Batzer, H. 454.
- , Fritz. Einfluß der chemischen Konstitution auf die Molekülgestalt bei Polyester. 5. Polyester. 454.
- Wilson, A. J. C. s. Eastabrook, J. N. 2416.
- s. Hughes, J. W. 1472.
- , Allan N. Mu meson ionization in argon at energies 10 to 100 Bev. 983.
- , A. R. W. $^8\text{Li}(\beta^-)^8\text{Be}^*(2\alpha)$ hammer tracks in photographic emulsions. 239.
- , Ben. s. Reid, Allen F. 2343.
- , B. G. s. McCormack, P. D. 615.
- s. McCusker, C. B. A. 614.

- Wilson, E. J. Automatic Toepler pump and a circulating pump. 1723.
- , Glen C. Pipe-line-system telemetering. 302.
- , H. W. s. Curran, S. C. 2009.
- s. McNair, A. 2371.
- , J. E. s. Stewardson, E. A. 1183.
- , J. G. s. Eyeions, D. A. 245.
- , John W. jr. and Mapes, Gerard S. Shadow-casting lubricating greases for electron microscope examination. 2210.
- , M. H. and Brocklebank, R. W. Complementary hues of after-images. 1693.
- , M. Kent s. Polo, Santiago R. 1815.
- , P. R. s. Hebbard, D. F. 2393.
- s. McDonell, J. A. 2393.
- , R. Noise in ionization chamber pulse amplifiers. 1976.
- s. Voss, R. G. P. 1531.
- , Richard s. Mims, W. 1990.
- , Robert R. Scattering of 1.3^3 Mev gamma-rays by an electric field. 91.
- , R. W. Contact resistance and mechanical properties of surface films on metals. 300.
- , Samuel W. s. Nimeroff, Isadore. 860, 2527.
- Wimmel, H. s. Maier, W. 1194.
- Winans, J. G. und Heitz, M. P. Energy of dissociation of Hg_2 . 1618.
- Dissoziationsenergie von Hg_2 . 1618.
- s. John, Robert M. St. 668, 1044.
- s. Zei, Dino. 1049.
- Winckel, Fritz. Energiespektrum des Fernsehbildes. 1452.
- Winckler, J. s. Ladenburg, R. 18.
- , J. R. and Peterson, L. Azimuthal effect for cosmic-ray protons and alpha particles using a Cerenkov counter. 249.
- Winde, B. s. Lehmann, K. 2494.
- Windle, J. J. and Shaw, T. M. Microwave dielectric measurements on single fibers. 1010.
- Windham, P. M. s. Gossett, C. R. 1591.
- s. Phillips, G. C. 1789.
- s. Schiffer, J. P. 1789.
- Winegard, W. C. s. Rosenberg, A. 629.
- Winfield, Raymond. Transient analysis by time selection. 1069.
- Wing, A. B. s. Birks, L. S. 104.
- Winhold, E. J. s. Burkhardt, J. L. 2015.
- s. Stephens, W. E. 954.
- Winick, H. s. Sachs, A. M. 2039.
- Winkel, P. Calculations with the two-fluid model, concerning the flow of liquid helium II. 1948.
- Groenou, A. Broese van and Gorter, C. J. Heat conduction in liquid helium II. 1948.
- Delsing, A. M. G. and Gorter, C. J. Mutual friction in liquid helium II. 1947.
- and Poll, J. D. Existence of critical velocities in liquid helium II. 1948.
- Winkelmann, Albert. Temperaturerhöhung der Objekte im Elektronenstrahl. (Zur Frage der Aushärtung in dünner Schicht.) 165.
- Messung der Temperaturerhöhung der Objekte bei Elektroneninterferenzen. 1468.
- , Dellef. Elektrochemische Messung der Oxydationsgeschwindigkeit von Na_2SO_3 durch gelösten Sauerstoff. 664.
- Einfluß der Reaktionsgeschwindigkeit auf die Stromdichte beim Verfolgen von Reaktionsverläufen durch den Diffusionsgrenzstrom. 664.
- Winkler, E. H. Light-intensity distribution in the Mach-Zehnder interferometer. 157.
- s. Smiley, E. F. 2294.
- , Gottfried. Theorie der Ausbreitung ebener Wellen in homogenen Plasmen. 2493.
- , H. s. Bumiller, F. 39.
- , R. s. Krebs, K. 1417.
- , U. s. Busch, G. 1653.
- , Ulrich. Elektrische Eigenschaften der intermetallischen Verbindungen Mg_2Si , Mg_2Ge , Mg_2Sn und Mg_2Pb . 1434.
- , Walter. Hochenergetische Kernstöße von α -Teilchen der kosmischen Strahlung. 2370.
- , Werner s. Ross, Sydney. 2088, 2089.
- Winogradski, J. Groupe relativiste de la théorie unitaire d'Einstein-Schrödinger. 716.
- Tenseur impulsion-énergie métrique et le théorème de Noether. 1493.
- , Mme Judith. Forme spinorielle des densités de valeur moyenne des grandeurs physiques attachées aux particules de spin $1/2$. 364.
- Winovich, Warren s. Stine, Howard A. 2197.
- Winslow, George H. Alpha-decay theory and a surface well potential. 77.

- Winsor, L. P. and Lee, T. H. Properties of a dc arc in a magnetic field. 1049.
- , P. A. Structure of viscoelastic solutions of colloidal electrolytes. 1206.
- Winston, A. s. Osborne, L. S. 941.
- , H. s. Firle, T. E. 2136.
- Winter, Aniuta. Formateurs des verres. 338.
- , E.-O. s. Suhrmann, R. 733.
- , Rolf G. Search for double beta decay in cadmium and molybdenum. 1536.
- Double K capture and single K capture with positron emission. 1537.
- Winterhoff, Horst s. Hermann, Peter Konrad. 1209.
- Winther, A. s. Alaga, G. 1368.
- , Age. Radioactivité de ^{37}A . 1793.
- and Kofoed-Hansen, O. Coupling constants in β -decay. 593.
- s. Alder, Kurt. 717, 1299.
- Winzeler, H. Ionisationsmessungen an geeigneten Spuren in Kernemulsionen. 554.
- Winkelkorrelationen beim Zerfall des τ -mesons. 563.
- s. Hänni, F. 1757.
- s. Lohrmann, E. 762.
- Wippermann, F. Anwendung numerischer Prognosemethoden auf zeitlich gemittelte Felder. 2251.
- Einfluß des verwendeten Zeitschrittes auf die Güte numerischer Prognosen für den Fall divergenzfreier Strömungen. 2582.
- Verhalten des Truncationsfehlers bei Verwendung der zweidimensionalen und divergenzfreien Vorticity-Differenzengleichung. 2582.
- Wippler, Constant. Diffusion de la lumière par les solutions macromoléculaires. I. Etude théorique de l'effet d'un champ électrique d'orientation. 1831.
- II. Etude expérimentale de l'effet d'un champ électrique sur les particules rigides. 1832.
- III. Etude expérimentale de l'effet d'un champ électrique sur les molécules en chaînes. 1832.
- Wise, Edmund Merriman. Métaux de la famille du platine. 1268.
- , Henry and Frech, Maurice F. Kinetics of reaction between ammonia and oxygen in a quartz vessel. 1964.
- , M. E. Formulae relating to single-sample inspection by attributes. 536.
- Wiseman, G. G. s. Feaster, G. R. 462.
- Wiser, Herbert L. and Krumbein, A. D. Mechanism of the termination of the Geigerplateau region. 1119.
- Wiskott, Detmar. Berechnung der Wellenfunktionen im Coulomb-Feld bei anomaler Streuung. 1926.
- Wißner, Adolf. Richard Ulbricht 1849 bis 1923 Wegbereiter neuzeitlicher Lichttechnik. 2255.
- Witherspoon, A. E. s. Emelus, K. G. 2492.
- Witkop, B. Spectrophotometric differences between aminoheterocyclic bases and their salts. 784.
- Witmer, A. s. Addink, N. W. H. 496.
- , Enos E. Apparent importance of $(7/2)^6$ in the representation of nuclear masses as multiples of the electron mass. 49.
- Electron mass as the natural unit of mass for nuclei and elementary particles. 564.
- Three-dimensionality of space and the masses of nuclei and elementary particles. 1530.
- Witt, H. T. Experimente zum Primärprozeß der Photosynthese. 1479.
- , T. W. de Markovitz, H., Padden, F. J. jr. and Zapas, L. J. Concentration dependence of the rheological behavior of the polyisobutylene-decalin system. 1629.
- s. Markovitz, H. 1629.
- Witte, E. s. Sigmund, R. 1694.
- , R. S. s. Martz, D. E. 1862.
- Witting, H. Stationäre Instabilität der Prandtlischen Grenzschichtgleichungen. 2293.
- Wittke, H. Elektrische Integrationsverfahren. 1639.
- , Heinz. Korrektur der elementar ermittelten Eigenbiegeschwingungsfrequenzen zylindrischer Stäbe. 730.
- , J. P. and Dicke, R. H. Redetermination of the hyperfine splitting in the ground state of atomic hydrogen. 429.
- Wittwer, Gerhard s. Amsel, Otto. 1113.
- Wlérick, Gérard. Propriétés photoélectriques du sulfure de cadmium. 2477.
- Wöhlisch, Edgar. Unmittelbare Erkennung der Polarisation des Himmelslichtes. 341.
- Woerner, F. s. Kortum, G. 215.
- Woessner, R. H. s. Phillips, B. B. 1701.
- Woeste, K. Kernspaltung im Kollektivmodell. I. 577.

- Woeste, K. Kernspaltung im Kollektivmodell. II. 2368.
- Wohljarth, E. P. Effect of particle interaction on the coercive force of ferromagnetic micropowders. 815.
- Collective electron ferromagnetism: rectangular energy bands. 2103.
- Wohlleben, K. s. Backenstoss, G. 596.
- Wolf, E. Macroscopic theory of interference and diffraction of light from finite sources. II. Fields with a spectral range of arbitrary width. 2528.
- , Elizabeth A. Gamma rays from inelastic neutron scattering in sodium and iodine. 968.
- , Ernst and Zigler, Michael J. Location of the break in the dark adaptation curve in relation to pre-exposure brightness and preexposure time. 699.
- — Course of dark adaptation under various conditions of pre-exposure and testing. 1475.
- , Franz. Hagelwachstum — eine Quelle der Gewitterelektrizität. 1702.
- , H. C. s. Kossel, W. 1694.
- , Hans Christoph. Fluoreszenz- und Absorptionsspektrum von 1,8-Dimethylnaphthalin. 692.
- Bandenbreite im Fluoreszenzspektrum organischer Molekulkristalle. Untersuchungen an Naphthalin-Mischkristallen. 1070.
- Mechanismus der Energieübertragung bei der sensibilisierten Fluoreszenz in organischen Mischkristallen. 2209.
- und Griessbach, Dieter. Quarz-Prismenspektrograph als Analysator für polarisiertes Licht. 853.
- s. Griessbach, Dieter. 854.
- , K. Lise Meitner und Heinrich Wieland erhielten die ersten Otto Hahn-Preise. 182.
- , Robert s. Gallais, Fernand. 162.
- , W. P. s. Cooke, A. H. 279, 817.
- Wolfe, B., Silverman, A. and DeWire, J. W. Elastic photoproduction of π^0 mesons from deuterium. 1522.
- , Harry B. s. Steinberger, J. 2002.
- , Peter N. and Williams, Dudley. Microwave spectrum of ozone. 436.
- , R. s. Austin, I. G. 1860.
- , Robert N. s. Higgins, George C. 1676.
- Wolfe, A. W. s. Leontic, B. 2042.
- Lloyd, J. L. 609, 1131.
- Wolfsenstein, L. Tensor operators in isotopic spin space. 395.
- Possible triple-scattering experiments. 600.
- Polarization effects in the reaction $p + p \rightarrow \pi^+ + d$. 1343.
- Charge independence and polarization experiments. 2387.
- Wolff, G. Triboluminescence in crystals. 1072.
- Toman, L. and Clark, J. Relationship among hardness, energy gap and melting point of diamond-type and related structures. 912.
- s. Gross, G. 501.
- s. Stranski, I. N. 500.
- , H. s. Schäfer, K. 2058.
- , P. M. de and Kortlandt, D. Crystal structure determination from an X-ray powder diffraction pattern of β -Mg₂(OH)₃Cl. 795.
- Wolfgang, R. s. Baker, E. 954.
- , R. L. s. Friedlander, G. 1142.
- Wolffhard, H. G. s. Diederichsen, J. 2330.
- Wolfsberg, Max. Orbital electron excitation associated with electron capture in A³⁷. 79.
- s. Bigeleisen, Jacob. 764.
- Wolfson, J. L. Evidence for a 2.158 Mev. level in Ni⁶⁰. 2379.
- s. Elliott, L. G. 2031.
- s. Graham, R. L. 1154.
- Wolicki, E. A., Fagg, L. W. and Geer, E. H. Coulomb excitation of energy levels in Br and Re. 1790.
- s. Fagg, L. W. 2026.
- s. Geer, E. H. 1575.
- , E. J. s. Geer, E. H. 965.
- Wolke, R. L. Angular distribution of fragments from 450-Mev proton fission of Bi. 1355.
- Wolkers, G. J. s. Michels, A. 2308.
- Woll, John W. jr. s. Green, Louis C. 619.
- Wollan, E. O. and Kochler, W. C. Neutron diffraction study of the magnetic properties of the series of perovskite-type compounds $[(1-x)\text{La}, x\text{Ca}]\text{MnO}_3$. 1624.
- s. Kochler, W. C. 441.
- Wollenberger, J. H. s. Kussmann, A. 1898.
- Wollman, Elie s. Jacob, François. 1479.
- Wollmann, H. Reflexionsverminderung an optischen Systemen. 853.
- Wolstenholme, W. E. s. Mooney, M. 1631.

- Wolter, H. Phasenkontrastverfahren und seine Anwendbarkeit auf chemische Untersuchungen. 2521.
- Wolters, G. F. s. Rietjens, L. H. Th. 1122.
- Woltjer, H. R. Physik und Natur. 1289.
- Wolzien, E. C. s. Selby, M. C. 304.
- Wondratschek, Hans. Ableitung des elektropoptischen Effekts in Kristallen. 2200.
- Wood, C. s. Lempicki, A. 293.
- , C. E. s. Wall, R. F. 1679.
- , E. s. Randle, T. C. 1798.
- s. Taylor, A. E. 2038.
- , G. T. and Jastram, P. S. Polarization correlation in the decay of Co^{56} . 1155.
- — Directional and polarization-directional correlations in $\text{Pb } 208 \gamma\text{--}\gamma$ cascades. 1159.
- , Jill G. s. Tolmon, F. R. 1881.
- , J. K. s. Broadbent, T. E. 297.
- , J. L. s. Cutting, C. L. 553, 754.
- s. Jason, A. C. 1016.
- s. Skull, E. R. 2059.
- , K. G. Polarograms of oxygen in lake water. 2485.
- , P. J. s. Rushbrooke, G. S. 1421.
- , R. E. Landon, H. H. and Sailor, V. L. Parameters for the neutron resonance in gold. 960.
- s. Sailor, V. L. 958.
- , R. M. s. Ames, I. 1265.
- , R. W. †. 894.
- , T. Donald s. Jasper, Joseph J. 1839.
- , W. A. Strain-hardening of a metal by laminar or turbulent flow. 867.
- , William W. and Schomaker, Verner. Molecular structure of 1,2-dichloropropane. 100.
- Woodard, D. H. and Bronson, E. L. Effect of orientation on the metallic reflexion of polarized light. 2198.
- Woodbury, H. H. and Tyler, W. W. Properties of Zn-doped germanium. 1433.
- — Properties of germanium doped with manganese. 2122.
- — Properties of germanium doped with manganese. 2474.
- s. Newman, R. 2123.
- s. Tyler, W. W. 822, 1433.
- Woodgate, G. K. and Hellwarth, R. W. Nuclear spin and hyperfine structure of radioactive silver, ^{111}Ag . 2007.
- Woodhull, Elliot H. Siegler, E. H. and Sobcov, Harold. Sensitizing nondispersive infrared analyzer. 1679.
- Wooding, R. A. Approximate joint probability distribution for wave amplitude and frequency in random noise. 1485.
- Woodrow, J., Mott, B. W. and Haines, H. R. Analysis of polarized light reflected from absorbing materials at normal incidence. 2525.
- Woodruff, Nathan H. s. Crompton, Charles E. 955.
- , Robert W. and Givens, M. Parker. Soft X-ray absorption of evaporated thin films of tellurium. 429.
- , Truman O. Solution of the Hartree-Fock-Slater equations for silicon crystal by the method of orthogonalized plane waves. 1217.
- Woods, D. C. s. Kash, S. W. 85.
- , H. J. s. Terry, N. B. 207.
- , J. and Wright, D. A. Field enhanced cathodo-luminescence in magnesium oxide. 327.
- , Joseph F. Hall effect and resistivity study of photoconducting PbS films. 1862.
- , L. C. Theory of two-dimensional wind tunnels with porous walls. 546.
- , R. D. s. Callaway, J. 1139.
- , S. B. Conductivity of sodium at low temperatures. 2465.
- s. MacDonald, D. K. C. 1851.
- s. Mooser, E. 473.
- Woodward, E. C. and Speck, D. R. Isotope shift in $\lambda 4415 \text{ Cd II}$. 620.
- , Ida s. Pollock, J. McC. 2055.
- , L. A. and Bill, P. T. Raman effect and solvent extraction. Spectrum of the InBr_4^- ion. 1619.
- s. Rolfe, J. A. 1188.
- , P. M. and Davies, I. L. Theory of radar information. 2185.
- Wooley, R. L. Testing point-contact transistors for pulse applications. 2479.
- Woolf, J. R. and Sibbitt, W. L. Thermal conductivity of liquids. 2311.
- Woolley, Harold W. Effect of Darling-Deennison and Fermi resonance on thermodynamic functions. 1118.
- , J. C. s. Phillips, J. H. 336.
- Wooster, W. A. Automatic recording microdensitometer. 1468.
- Wooten, B. A. s. Sachs, A. M. 2039.
- , F. O. s. Barnes, R. G. 1643.
- *Workman, E. J. and Reynolds, S. E. Structure and electrification. 528.

- Worley, R. D., Zemansky, M. W. and Boorse, H. A. Heat capacities of vanadium and tantalum in the normal and superconducting phases. 1023.
- Worlock, R. M. and Smythe, W. R. π^0 photoproduction from protons and deuterium nucleons. I. 1342.
- s. Smythe, W. R. 1342.
- s. Tollestrup, A. V. 1522.
- Wormald, J. R. s. Shire, E. S. 2367.
- Worthington, A. E. s. Marx, Paul. 2437.
- , C. R. Small angle X-ray diffraction unit. 1411.
- and Tomlin, S. G. Small-angle X-ray diffraction patterns of collagen. 171.
- Wosnik, Philipp-Reis-Plakette für Karl Küpfmüller. 2256.
- Wotruba, Karel. Gerät zur Messung der Magnetostriktion durch eine veränderliche Kapazität. 1209.
- Wouters, L. F. s. Villaire, A. E. 1123.
- Wozniak, R. Regenerierung von Ölkabeln für hohe Spannungen (60 und 110 kV.) 275.
- Wrabetz, K. s. Noddack, W. 658.
- s. Piontelli, R. 1440.
- Wrenshall, Gerald A. s. Lax, Louis C. 697.
- Wright, Byron T. s. Heusinkveld, Myron. 1752.
- s. Royden, Herbert N. 1797.
- s. Sun, C. R. 1516.
- , D. A. s. Woods, J. 327.
- , George F. s. Meredith, C. C. 2166.
- , G. T. Absolute quantum efficiency of photofluorescence of anthracene crystals. 326.
- Fluorescence excitation spectra and quantum efficiencies of organic crystals. 499.
- Absolute scintillation efficiency of anthracene crystals. 757.
- s. Hamilton, T. D. S. 1060.
- , H. R. s. Duff, R. E. 926.
- , I. F., Morrison, D. R. O., Reid, J. M. and Atkinson, J. R. Photodisintegration of nitrogen. 952.
- s. Reid, J. M. 239.
- , K. A. s. Brown, W. L. 1219.
- s. Fletcher, R. C. 1029.
- , K. H. R. s. Grunberg, L. 2088.
- , R. J. s. Metcalfe, K. A. 2205.
- , R. W. s. Skinner, N. J. 1913.
- , Robert W., Saphir, George, Powell, Wilson M., Maenchen, George and Fowler, William B. Proton-proton interactions at 5.3 Bev. 1797.
- Wright, Robert W. s. Fowler, William B. 1528.
- s. Maenchen, George. 1753, 2001.
- , S. Courtenay. Phase shift formulas for nucleon-nucleon scattering. 1584.
- , W. W. s. Mills, B. D. 1454.
- s. Rowe, E. G. 1454.
- Wu, C. S. s. Benczer, N. 1159, 2376.
- s. Farrelly, B. 1161, 1560.
- s. Glauber, R. J. 1579.
- s. Koerts, L. 1156.
- s. Lidojsky, L. 1162.
- s. Lieshout, R. van. 1148, 1566.
- s. Lindqvist, Torsten. 596, 1577.
- s. Marder, S. 1331.
- , Ta-You. Theory of directed valence. 1095.
- Electron affinity of boron, carbon, nitrogen and oxygen atoms. 1610.
- Suggested method for studying the mechanism of energy transfer in collisions. 2050.
- and Tauber, G. E. Relativistic energy of two-electron atoms. 8.
- s. Bauer, Ernest. 180.
- , T. Y. s. Levitt, L. 994.
- s. Tauber, G. E. 1139.
- Wucher, Jules. Evolution de quelques propriétés du sesquioxyde de vanadium au voisinage de ses transformations. IV. Comportement magnétique du sesquioxyde de vanadium entre -170°C et $+600^\circ\text{C}$. 2422.
- Wünsch, G. Entwicklung und wichtigste Verfahren der industriellen Regelung. 2277.
- Regelungstechnik. 2277.
- Würger, E. s. Baldinger, E. 1537.
- Wüstlin, F. s. Thurn, H. 2084.
- Wüst, Georg. Zweiteilung der Hydrosphäre. 2576.
- Wuest, W. Asymptotische Absaugegrenzschichten an längsangeströmten zylindrischen Körpern. 1105.
- Wunderlich, Günter. Thermodynamik des Pyritzerfalls. 752.
- , H. s. Asmus, E. 495.
- Wundt, H. Wachstum der laminaren Grenzschicht an schräg angeströmten Zylindern bei Anfahrt aus der Ruhe. 1105.
- Wuttke, H.-G. s. Suhrmann, R. 114.
- Wyart, J. Albert Michel-Lévy (1877 bis 1955). 2254.

- Wyckoff, H. O., Aston, G. H. and Smith, E. E. Comparison of X-ray standards. 342.
- , J. M. and Koch, H. W. Energy spectrum of the delayed gamma rays from uranium photofission. 1776.
- s. Koch, H. W. 388.
- Wye, R. F. van and Beckerley, J. G. Multiple neutron capture processes. 2013.
- Wylde, H. W. s. Arnold, W. H. 1755, 1998.
- , H. W. jr. s. Treiman, S. B. 1338.
- Wyllie, H. A. McLeod gauge for measuring a wide range of pressures. 2273.
- Wyluda, B. J. and Shulman, R. G. Copper in germanium: recombination center and trapping center. 1433.
- s. Shulman, R. G. 1644.
- Wyly, L. D. s. Braden, C. H. 239.
- s. Reynolds, H. L. 974, 1165.
- s. Zucker, A. 1165.
- Wyman, James H. s. Gordy, Walter. 1907.
- Wyon, G. and Marchin, J. M. Formation of etch pits on slip lines in aluminium. 262.
- Wyrski, Klaus. Einfluß des Windes auf die Wasserbewegungen durch die Straße von Dover. 2578.
- Einfluß des Windes auf den mittleren Wasserstand der Nordsee und ihren Wasserhaushalt. 2578.
- Wyszecki, G. Invariance of insidedness in projective transformations of the Maxwell triangle. 874.
- , Günter. Graphical interpretation of a three-components theory of chromatic adaptation in terms of the CIE chromaticity diagram. 513.
- Valenzmetrische Untersuchung der Umstimmung. 2555.
- s. Budde, Wolfgang. 1887.
- Y**
- Yabumoto, Tadaichi s. Takayama, Kuzuo. 145.
- Yada, Keiji s. Hibi, Tadatoshi. 806.
- Yadoff, Oleg. Production of electrostatic charges by rotation of a permanent magnet. 464.
- and Yadoff, Sophie. Rotational oscillations of electrostatically charged conductors. 464.
- , Sophie s. Yadoff, Oleg. 464.
- Yaffe, L. s. Bell, R. E. 1351.
- s. Graham, R. L. 1548.
- Yager, W. A., Galt, J. K. and Merritt, F. R. Ferromagnetic resonance in two nickel-iron ferrites. 2461.
- s. Bozorth, R. M. 2456.
- s. Fletcher, R. C. 130, 1029.
- Yagi, Hisao s. Uchida, Yôichi. 2424.
- , Teiichiro s. Sekido, Yataro. 2398.
- Yagoda, Herman. Ratio of π^-/π^+ meson production in cosmic-ray disintegrations of emulsion nuclei. 45.
- Mesonic decay of an ejected triton. 1132.
- Pion-pair production in a nuclear emulsion. 1339, 1340.
- Charge spectrum and zenith angle distribution of heavy primary nuclei entering the atmosphere. 2045.
- Yakel, H. L. jr. and Hughes, E. W. Unit-cell dimensions and space groups of two modifications of crystalline glycylglycyl-glycine. 1005.
- Yalow, Rosalyn S. and Berson, Solomon A. Kinetic analysis of thyroïdal iodide trapping and binding in the human subject. 340.
- Yamabe, Shotaro and Sanada, Jyumppei. Backward scattering of D—D neutrons. 2392.
- , Nozawa, Masao and Sanada, Jumptei. Energy dependence of the capture cross sections of Ag, Cu and Al for fast neutrons. 2392.
- Yamada, Masami. Finite nuclear size effect in beta-decay. 2384.
- Correction to the beta-decay nuclear matrix elements. 2384.
- s. Fujita, Jun-ichi. 2385.
- s. Kikuta, Takushi. 1532.
- , M. s. Morita, M. 1162, 1162, 1367, 2381.
- , Osamu. Irreversible magnetische Nachwirkung und deren Einfluß auf den Verlauf der Magnetisierungskurve. 120.
- und Hahlbohm, Hans-Dieter. Methoden zur Bestimmung der Konstanten S_V der irreversiblen magnetischen Nachwirkung. 1844.
- , Ryozo. Radio wave propagation in a stratified atmosphere. 150.
- , Shoichiro and Tsuchida, Ryutaro. Fine structure in absorption spectrum of tricesium cobaltous pentachloride in crystalline state. 1194.
- , Yahiko s. Yoshinaga, Hiroshi. 2524.

- Yamagata, Taketora and Yoshimine, Megumu.* Monte Carlo calculation on Čerenkov counters. 1325.
- , *Yukio s. Itoh, Junkichi.* 1019, 2462.
- Yamaguchi, Jiro.* Blocking layer of selenium rectifier. II. 2137.
- , *Miyuchi, Takeshi and Mori, Hideo.* Electrical dispersion of selenium rectifier at high frequency. 2479.
- , *Kanazawa, Tadao, Matozaki, Tôru and Hirai, Kazuji.* Blocking layer of selenium rectifier. I. 2136.
- , *Shigeto.* Abschätzung der Dicke der Beilby-Schicht. 338.
- , *Titanium observed by electron diffraction.* 1074.
- , *Temperaturerhöhung der Objekte im Elektronenstrahl.* 1469.
- , *Protective films on magnesium observed by electron diffraction and microscopy.* 1635,
- , *Application of Ellis' theory on plural electron scattering to razor edge.* 1685.
- , *Metallic corrosion influenced by ultrasonic waves.* 2219.
- , *Y. and Yamaguchi, Y.* Photodisintegration of the deuteron. 406.
- , *s. Nambu, Y.* 2396.
- , *s. Yamaguchi, Y.* 406.
- , *Yoriko s. Yamaguchi, Yoshio.* 953.
- , *Yoshio.* Two-nucleon problem when the potential is nonlocal but separable. I. 953.
- , *Elastic production of neutral photo-pions in helium.* 2355.
- , *and Yamaguchi, Yoriko.* Two-nucleon problem when the potential is non-local but separable. II. 953.
- , *s. Fujimoto, Yoichi.* 2349.
- Yamaguti, Tasaburô.* Sodium nitrate polarization plate of scattering type. 1254.
- , *Simple method obtaining a large single crystal of sodium nitrate.* 2421.
- , *and Nishino, Minoru.* Micro analysis of solutions by arc of alternating currents. 2542.
- Yamaka, E. and Sawamoto, K.* Electrical conductivity of magnesium oxide single crystals. 825.
- , *Electrical conductivity and thermo-electric motive force in MgO single crystal.* 2132.
- Yamamoto, K. s. Hasebe, K.* 1233.
- Yamamoto, Mikio.* Empirical formula for the ferromagnetic anisotropy constant in cubic crystals. 2545.
- , *Takaaki s. Nagashima, Tomio.* 2455.
- , *Takao.* Analytical representation of general spin. 2270.
- , *Tsunenobu.* Statistical mechanics of general Brownian motions underlying. 1321.
- Yamanaka, Chiyoë and Suita, Tokuo.* Electron bombardment conductivity in alkali-halide crystals. I. 1037.
- , *Electron avalanche and dielectric breakdown in solids.* II. 2498.
- Yamanouchi, Takahiko and Horie, Hisashi.* Intensities of forbidden lines of atoms in p^n -configuration. 2405.
- Yamashita, Jiro.* Quantummechanical computations of the lattice energy and the lattice constant of LiF crystals. 2419.
- , *and Kojima, Masao.* Electronic states of the doubly-charged negative ions of oxygen in oxide crystals. 2418.
- , *and Kurosawa, Tatumi.* Theory of the dielectric constant of ionic crystals. III. 1870.
- , *Sukeaki s. Kimura, Kiichi.* 2388.
- Yanagawa, Sadaaki.* Theory of the normal modes of vibration in crystal. 1405.
- Yang, C. N. s. Case, K. M.* 1995.
- , *s. Lee, T. D.* 1298, 2349.
- , *Ling s. Pound, G. M.* 1007.
- , *L. M. s. Born, Max.* 2006.
- , *Richard F. H.* Quasi-Fraunhofer gain of parabolic antennas. 850.
- Yarwood, J. and Croisette, D. H. le. D. C.* amplifiers. I. Methods of amplifying and measuring small direct currents and potentials. II. 305.
- , *s. Chomet, S.* 428.
- , *s. Holland, L.* 1741.
- , *s. Rossman, M. G.* 2318.
- Yasaitis, E. L. s. Smaller, B.* 123.
- Yasaki, T. s. Inoki, M.* 47.
- Yasin, M. s. Dahanayake, C.* 561.
- Yasuzumi, G.* Ultrastructure of the nucleus and its components. 2223.
- Yates, B. s. Hoare, F. E.* 211.
- , *D. J. C.* Equations of state for the expansion of rigid porous solids on the adsorption of gases and vapours. 2314.
- , *W. A. and Queen, J. L.* Sheet and plated metal measurements. 2279.

- Yavin, Avivi I. and Schmidt, Fred H. Precision energy measurements of the gamma rays following the decay of Bi^{207} . 1581.
- Yeager, Ernest s. Bugosh, John. 2163.
- Yearian, H. J. and Derbyshire, W. D. Oxygen parameters of the $\text{FeFe}(2-x)\text{Cr}_x\text{O}_4$ spinel system. 1822.
- Yeh, G. C. K. s. Ludford, G. S. S. 1306.
- Yeiser, John s. Simonton, M. E. 1983.
- Yeivin, Y. Positive-negative difference of cosmic-ray muons. 399.
- s. Eisenberg, Y. 2001.
- , Yehuda. Charge and isotopic-spin conservation in multiple meson production. 941.
- Yekutieli, G., Kaplon, M. F. and Hoang T. F. Nature of the neutral particles in the $\text{K}_{\mu 3}$ decay. 1521.
- and Klarmann, J. β -decay of K-mesons. 1333.
- s. Cester, R. 1976.
- s. Kaplon, M. F. 1756.
- s. Klarmann, J. 1333.
- s. Lipkin, H. J. 774.
- s. Lock, W. O. 2013.
- s. Rosendorf, S. 562.
- Yennie, D. R., Ravenhall, D. G. and Downs, B. W. Modified Born approximation for electron scattering calculations. 600.
- s. Downs, B. W. 608.
- s. Heims, S. P. 608.
- s. Ravenhall, D. G. 608.
- Yergin, P. F. s. Halpern, J. 405.
- , Paul F. and Fabricand, Burton F. $\text{Mg}(\gamma, n)$ cross section. 1354.
- $\text{Sr}^{86, 87, 88}$, Y^{89} , $\text{Zr}^{92}(\gamma, n)$ cross sections. 1775.
- s. Geller, K. 1774.
- s. Novick, Robert. 1611, 1805.
- Yevick, G. J. and Percus, J. K. Exact classical and quantum mechanical equations of motion for N particles using collective coordinates. 362.
- s. Percus, J. K. 361, 1495, 2278.
- , George J. and Percus, Jerome K. Feynman's atomic theory of liquid helium. 111.
- — Many-body problem. 2278.
- Yilmaz, Huseyin. Wave functions and transition probabilities for light atoms. 8.
- Formulation of relativity. 359.
- Wave functions and transition probabilities for light atoms. 1608.
- Yntema, G. B. Superconducting winding for electromagnet. 1023.
- , J. L. s. Bayard, Robert T. 422.
- Yockey, H. P. s. Andrew, A. 1605.
- Yoder, P. R. jr., Patrick, F. B. and Gee, A. E. Application of the Rayleigh criterion to the null test of Dall-Kirkham primary mirrors. 1458.
- Yodh, G. B. s. Panofsky, W. K. H. 1341, 1524.
- , Gaurang B. Charged pion production in neutron-proton collisions. 1340.
- Production of charged pions in N—P collisions. 1341.
- Yokobori, Takeo. Theory of fatigue fracture of metals. 1306.
- Delayed yield and strain rate and temperature dependence of yield point in iron. 1729.
- Failure and fracture of metals as nucleation processes. 2283.
- Creep fracture of copper as nucleation process. 2283.
- Failure and fracture of metals as rate processes. 2283.
- Failure and fracture of metals from the standpoint of the stochastic theory. 2283.
- Ductility transition and cold brittleness. 2283.
- Yokoi, Kei s. Ono, Ken-ichi. 1758.
- Yokota, Isaaki. Electrical conductivity of cuprous sulfide: diffusion theory. 2476.
- , Mario and Koide, Shoichiro. Exchange effects on the absorption spectrum by the paramagnetic crystal with anisotropic g-factors. 123.
- , Ryosuke. Color centers of quartz and fused quartz. 2425.
- , Seinen. Scientific and technical papers 1954. 1491.
- Yokoyama, Izumi. Method for regulating electric currents and its application to measurements of geomagnetic field. 2567.
- , Tohru. Experimental research on the order-disorder transformation of iron-cobalt alloys. 1270.
- Yonezawa, T. Fluctuation in electron density of the F_2 layer of the ionosphere. 2575.
- and Shimazaki, T. Latitudinal distribution of maximum values of f_0F_2 in its diurnal variation. 2575.
- , Teijiro s. Fukui, Kenichi. 626.

- Yorgiadis, Alexander. Damping capacity of materials. 1101.
- Yos, J. M. s. Jehle, Herbert. 628.
- Yoshida, S. High energy nuclear, photoelectric reaction. 2362.
- , Sekiko and Kondo, Ichiro. 27-day recurrence of the cosmic-ray diurnal variation. 2046.
- s. Sekido, Yataro. 2043.
- , Shigetomo, Takeda, Ikuo, Igarashi, Yoshitaka and Arata, Hikaru. Secondary electron emission of copper-beryllium alloy. The surface products of the alloys and their secondary electron emission characteristic under different oxygen pressures and temperatures. 2500.
- , Shiro. Reduced widths on collective model. 1151.
- s. Hayakawa, Satio. 1359, 2391.
- s. Sugie, Atsushi. 2368.
- , Tetsuo und Hayashida, Kensei. Graphische Bestimmungsmethode der Oberflächentemperatur eines elektrisch geheizten Drahts. 2307.
- , Umejiro and Suzuki, Akira. Temperature measurement by the thermistor oscillator. 1508.
- Yoshihashi, Hiroshi s. Shiio, Hazime. 2302.
- Yoshikawa, S. and Hasebe, T. Mass spectrum of elementary particles. 2350.
- , Sadae and Hasebe, Tomimaro. Empirical charge dependence relation to the rest-masses of elementary particles. 899.
- Yoshimatsu, Seiichi, Kanzaki, Chikashi, Ibuki, Sumiaki and Murai, Naomichi. Influence of infrared rays on the photoconductivity of the polycrystalline CdS. 2478.
- , T. Secular variation of earth-current potentials. 2569.
- , Takasaburo. Diurnal and seasonal frequencies of occurrence of 'sudden commencements', SC, in geomagnetism. 2569.
- Yoshimine, Megumu s. Yamagata, Take-tora. 1325.
- Yoshimori, Akio and Matsubara, Takeo. Method of treating the zero-point vibration of the crystal of lighter molecules. 2419.
- Yoshimoto, Gennosuke and Tsukizoe, Tadasu. Mechanism of contact between metal surfaces. 1313.
- Yoshimoto, Toshio s. Mizushima, San-Ichiro. 2410.
- Yoshimura, Tetz. Consistency of the quantum field theory based on the renormalization hypothesis. 1715.
- Interaction of the second kind. 1716.
- , Yoshimaru. Definition of stress in the finite deformation theory. 2281.
- Yoshinaga, Hiroshi. Reflectivity of several crystals in the far infrared region between 20 and 200 microns. 1885.
- and Oetjen, Robert A. Optical properties of indium antimonide in the region from 20 to 200 microns. 1651.
- Sampling technique for transmission measurements in the far infrared region. 2522.
- and Yamada, Yahiko. Construction of a far infra-red spectrometer with echelette grating. 2524.
- Yoshizawa, Shizuyo s. Kanai, Kiyoshi. 2565.
- , Yasukazu. Beta-ray spectra of Co⁶⁰ and Sc⁴⁶. 1160.
- s. Sanada, Jyumpei. 2357.
- Yosihara, Kunio s. Suga, Tarô. 857.
- Yosimoto, Hiroshi. Oscillatory phenomena of arc in hot cathode discharge tube. I. Experimentals (characteristics of oscillation). II. Theoretical (mechanism of oscillation). 2492.
- Yost, Henry T. jr. s. Swanson, C. P. 704.
- Young, A. Use of punched cards in science and administration. 2258.
- , A. J. Control of chemical processes. 2277.
- , D. A. s. Tompkins, F. C. 2424.
- , D. M. s. Dacey, J. R. 2447.
- s. Whitton, W. I. 926.
- , Donald E. s. Tucker, Edmund B. 1519.
- , D. R. s. Drougard, M. E. 1239, 2496.
- s. Huibregtse, E. J. 1239.
- , G. M. Recrystallization in aluminium alloys. 335.
- , I. R. s. Jones, R. V. 739.
- , J. B. and Tompsett, D. H. Short-circuit forces on turbo-alternator end-windings. 1663.
- , J. D. s. Burcham, W. E. 571.
- , J. E. R. s. Bitter, F. 97.
- , J. R. Deterioration of luminescent phosphor under positive ion bombardment. 692.
- , Leslie s. Firth, D. 2276.
- , M. R. P. s. Knott, R. D. 132.
- , R. M. s. Lambert, J. D. 16.

- Youngblood, J. F.* Low temperature dielectric measurements. 1240.
- Youngquist, M. s. Mills, I. M.* 1883.
- Youtz, Byron, L. s. Kerth, Leroy.* 978.
- Ypsilantis, T., Wiegand, C., Tripp, R., Segrè, E. and Chamberlain, O.* Depolarization in scattering of polarized protons by hydrogen at 310 Mev. 976.
- — — — — Rotation of polarization vector and depolarization in p-p scattering. 976.
- *s. Chamberlain, O.* 85, 1759.
- *s. Tripp, R.* 973.
- Yu, S. P. s. Morrish, A. H.* 2280.
- Yuan, Luke C. L. s. Lindenbaum, S. J.* 1603.
- Yuasa, Kazunori s. Kimura, Kiichi.* 2388.
- *s. Tokunaga, Senzo.* 1136.
- *T., Nahmias, E. et Vivargent.* Désintégration du ^{59}Cu et stabilité des noyaux $2Z + 1X$. 2022.
- Z
- *Mlle Tosiko.* Préparation d'une source de zinc 65 d'activité spécifique très élevée. 57.
- Yukawa, H.* Difference between local and non-local fields. 2268.
- *J. and Umezawa, H.* Problem of covariance in quantum electrodynamics. I. II. 2268.
- *Jiro s. Marumori, Toshio.* 1930.
- Yunta, J. s. Aguilar, M.* 340, 341, 698, 2554.
- Yuster, Philip, Rocklin, Sol, Ramler, Warren and Delbecq, Charles.* Crystal technique for measuring cyclotron beam energies. 1126.
- *P. H. s. Delbecq, C. J.* 799, 1635.
- *s. Primak, W.* 799.
- Z
- Zachariasen, F.* Photoproduction of μ -meson pairs in hydrogen. 1759.
- *Fredrik.* Photodisintegration of the deuteron. 1543.
- Zacutti, A. s. Bertanza, L.* 554.
- Zähringer, J. s. Gentner, W.* 176.
- Zajfarano, D. J. s. Kline, R. M.* 59.
- Zagar, Francesco.* Modelli anisotropi nella cosmologia newtoniana. 1282.
- *L. s. Schwiete, H. E.* 2288.
- Zago, G. s. Deutschmann, M.* 1335, 1999.
- Zajac, Barbara and Miller, N.* Fine structure in the U 238 decay. 2009.
- and *Ross, Marion A. S.* Calibration of electron-sensitive emulsions. 930.
- Zalm, P., Diemer, G. and Klasens, H. A.* Aspects of the voltage and frequency dependence of electroluminescent zinc sulphide. 329.
- Zaleski, C. P. s. Eriksen, V. O.* 2347.
- Zamansky, Marc.* Sommatation des séries divergentes. 1921.
- Zankel, Kenneth L. and Green, Alex E. S.* Perturbations of the semiempirical mass equation. 567.
- Zandt, T. E. van.* Derivation from Boltzmann's equation of the similarity laws for ionized gases. 1048.
- Zandy, Hassan F.* MIV and MV absorption lines and edges of Gd^{64} , Dy^{66} and Yb^{70} . 994.
- Zangger, Cl. et Rossel, J.* Etude de l'évaporation nucléaire dans Ag et Pt par émulsions en sandwich. 769.
- Zapas, L. J. s. De Witt, T. W.* 1629.
- Zapf, T. L. and Spinks, A. W.* Precise rate-measurement of watt-hour meters. 811.
- *s. Spinks, A. W.* 811.
- Zappa, L. s. Bisi, A.* 411, 772, 1979, 2023.
- *Luisa s. Slätis, Hilding.* 2372.
- Zaslow, Bertram, Atoji, Masao and Lipscomb, William N.* Crystal structure of phosgene, COCl_2 . 2068.
- Zatzkis, Henry s. Penfield, R. H.* 1295.
- Zauberis, D. D. s. Sidhu, S. S.* 335.
- Zaubitzer, Richard s. Reusse, Wilhelm.* 1267.
- Zavattini, E. s. Alexander, G.* 561.
- Zbinden, R. and Baldinger, E.* Bau eines Zweistrahl-Ultrarotspektrographen. 1842.
- Zech, Th.* Potenzsummen und Bernoullische Zahlen. 2259.
- Zeeland, Donald L. van s. Scheibe, Elmer H.* 1055.
- Zeeman, P. B. s. Barrow, R. F.* 625.
- Zer, Dino, John, Robert St. and Winans, J. G.* Properties of arc cathode spots in magnetic fields. 1049.
- Zeidman, Benjamin s. McFarland, Charles E.* 1797.
- Zeiger, H. J.* Boltzmann theory of cyclotron resonance for warped spherical energy surfaces. 1027.
- *s. Dexter, R. N.* 131.
- *s. Gordon, J. P.* 1450.
- *s. Lax, Benjamin.* 131.
- Zeidler, F. s. Scheer, M.* 94.
- Zeitz, Louis s. Kemp, J. W.* 502.

- Zelander, T. s. Ekholm, R. 873.
- Zeldes, Henry and Livingston, Ralph. Environmental effect on atomic hydrogen hyperfine structure in acids. 1847.
- Zelen, Marvin. Bounds on a distribution function that are functions of moments to order four. 1091.
- Zellmann, Alfred H. and Fitzgibbon, George C. Physical properties of the deuterogermanes. 214.
- Zemach, A. C. and Glauber, R. J. Dynamics of neutron scattering by molecules. 2390.
- Zemach, A. C. and Glauber, R. J. Neutron diffraction by gases. 2390.
- s. Moellering, W. M. 1809.
- Zemanek, Heinz. Pulse frequency multiplication and division by delay lines. 849.
- Zemanian, Armen H. Method of evaluating integral transforms. 1707.
- Zemansky, M. W. s. Worley, R. D. 1023.
- Zemany, P. D. s. Liebhaufsky, H. A. 1064.
- Zen'iti, Kiyasu and Ikeno, Nobuichi. Theory of multi-terminal network synthesis and the theory of equivalent networks. 2513.
- Zenneck, Jonathan, 85 Jahre. 1490.
- Zerbst, M. s. Heywang, W. 1430.
- Zernike, Frits, elected Honorary Member of the Optical Society of America. 894.
- Zernow, L. and Hauver, G. Cine-microscopy of sparks, exploding wires and fracture at framing rates $>10^6$ /second. 1459.
- , Louis s. Hauver, George. 496.
- Zettlemoyer, A. C. and Lower, G. W. Rheology of printing inks. III. Simple dispersions. 1202.
- Zeuner, F. E. Dating the past by radioactive carbon. 1984.
- Zichichi, A. s. Alexander, G. 561.
- Zickendraht, W. s. Flügge, S. 780.
- Zickner, G. Drehkondensatoren ohne Anfangskapazität. 1845.
- Einführung des absoluten Ohms I. Geschichtliche Entwicklung der elektrischen Widerstandseinheit bis zur Einführung des absoluten Ohms am 1. Januar 1948. 2272.
- Zickuhr, Waldemar. Ermittlung der zweckmäßigsten Hauptabmessungen von Überdruckdampfturbinen. 2297.
- Zidilkousskij, I. M. s. Bass, F. G. 286.
- Ziebland, H. and Burton, J. T. A. Thermal conductivity of liquid and gaseous oxygen. 748.
- Ziegler, B. s. Ulmer, K. 935.
- , C. A., Seliger, H. H. and Jaffe, I. Oxygen quenching and wavelength shifters in liquid scintillators. 388.
- , Viktor s. Petrowski, I. G. 534.
- Ziel, A. van der. Shot and partition noise in junction transistors. 1041.
- Zielasek, Gotthold. Einfluß verschiedener Ätzmittel auf Germanium. II. Physikalische Betrachtungen. 1218.
- Zieten, Willy. Makroskopische Ausdehnung und Fehlordnung von Silberbromid. 2069.
- Zigler, Michael J. s. Wolf, Ernst. 699, 1475.
- Zijp, W. L. s. Hok, Ong Ping. 2383.
- Zilsel, P. R. Liquid helium II: Bose-Einstein condensation and two-fluid model. 634.
- Ziman, J. M. Electron-phonon interaction, according to the adiabatic approximation. 258.
- Bose-Einstein condensation in helium films. 2073.
- Effect of free electrons on lattice conduction. 2419.
- s. Berman, R. 1318.
- Zimm, Bruno H. s. Price, Fraser, P. 860.
- Zimmer, E. s. Bisi, A. 411.
- Zimmermann, E. J., Kerman, R. O., Singer, Sidney, Kruger, P. Gerald and Jentschke, W. Proton-proton scattering at 5.77 Mev. 417.
- , R. L. and Palevsky, H. Inelastic scattering of cold neutrons by aluminium. 1380.
- s. Palevsky, H. 1594, 1753.
- , Howard K. jr. and Rysselberghe, Pierre van. Directed valence as a property of determinant wave functions. 622.
- , J. P. s. Brenner, M. 873.
- , S. F. s. Browne, C. P. 63.
- , Wolfhart. Thermodynamik eines Fermi-Gases mit Wechselwirkung. 2333.
- , Wolfhart. Yang-Feldman-Formalismus und gebundene Zustände. 1930.
- Zinke, O. Répartition du courant et de la tension des antennes cylindriques, elliptiques ou coniques. 306.
- Zinn, A. s. Sheer, C. 1119.
- , Walter H. Fermi and atomic energy. 936.

- Zinsser, Hans H. Hydraulic ram action of kidney glomerulus. 357.
- Ziomek, Joseph S. Bipyramidal XY_3Z_2 molecular model. I. Classical vibration problem. 1813.
- s. Piotrowski, Edward A. 1816.
- Zipiz, Ss. M. s. Ssokolow, A. W. 280.
- Zipoy, D. M. s. Patter, D. M. van. 572.
- Zirin, Harold. Exchange potential in an electron gas at nonzero temperature. 9.
- Zisman, W. A. s. Fox, H. W. 2444.
- Zissis, G. J. s. Deverall, G. V. 95.
- Zitka, B. H. and Sobra, K. Secondary energy processes in spark discharges. 2164.
- Zitter, R. N. s. Kurnick, S. W. 135.
- Zivojinov, Jovanka M. Relation entre la pression et la température d'ébullition et détermination de l'entropie moléculaire d'ébullition. 1509.
- Zjunaïtiss, G. K. und Juziss, A. P. Zweielektronen-Approximation für die beiden niedrigsten Konfigurationen des Bor-Atoms. 993.
- Zobel, W. and Steffen, R. M. Magnetic moment of the 0,247-Mev excited state of Cd^{111} . 1155.
- s. Steffen, R. M. 588.
- Zocher, H. mit Török, C. Optische Asymmetrien. 1061.
- Zöllner, Harry. Entwicklung der Photo-Objektive nach 1946 in Jena. 311.
- Zolingen, J. J. van and Went, J. J. Tri- α -naphtylborine, new scintillation material for thermal neutrons. 1979.
- Zollers, S. M. and Litwak, A. A. Operating considerations in the design of the electron microscope. 1069.
- Zollweg, R. J. Structure in optical absorption of barium oxide films. 808.
- Zoonen, D. van. Delay in the build-up of halogen-quenched counters. 928.
- and Prast, G. jr. Properties of argon-bromine counters. 1975.
- Zorll, U. Zweistoffschichten. VI. Elektronenbeugungsuntersuchungen über Diffusionserscheinungen an dünnen Silber-Selen-Schichten. 807.
- VII. Einwirkung der Quecksilberdampfreste auf die Diffusion von Silber in dünne Tellur- oder Selen-schichten. 808.
- Zorn, G. T. s. Baldo, M. 393, 563.
- s. Ceccarelli, M. 56.
- s. Ritson, D. M. 1995.
- Zotow, G. Spectrochemical analysis of radioactive materials. 496.
- Zschekel, H. Bauelemente elektronischer Rechentechnik. 2263.
- Zucker, A., Reynolds, H. L. and Wyly, L. D. Cross sections for electron capture and loss by 26-Mev nitrogen ions. 1165.
- s. Cohen, B. L. 52.
- s. Reynolds, H. L. 52, 974, 1144, 1165, 1373.
- , M. S. s. Walton, R. B. 575.
- Zückler, K. Beeinflussung der Leitfähigkeit dünner Halbleiterschichten durch kapazitiv angelegte Randfelder. 286.
- , Karl. Wirkungsweise spannungsabhängiger Siliziumkarbidwiderstände. 1222.
- Zühlsdorf, W. Methoden der theoretisch-mathematischen Behandlung von Aufgaben der Schaltungstechnik. 2501.
- Zuhrt, Harry. Quantenmäßige Darstellung der elektromagnetischen Felder beliebiger Frequenzen. I. 1496.
- Quantenmäßige Darstellung der elektromagnetischen Felder beliebiger Frequenzen. 2463.
- Zupančič, Ćrtomir s. Huus, Torben. 2381.
- Zurowski, Erwin. Schnellentregung eigen-erregter Synchrongeneratoren. 2174.
- Zurzycki, J. Micromethod for measuring photosynthesis. 2227.
- Dependence of photosynthesis on the arrangement of chloroplasts. 2228.
- Zutrauen, Hermann A. Etude tensionométrique et colorimétrique d'une série homologue de sels ammonium quaternaires. I. Etalement et adsorption; application de l'équation de Gibbs. 1840.
- II. Interaction entre certains indicateurs colorés et les détergents cationiques. Détermination de la concentration critique micellaire. 1840.
- Zwanzig, Robert W. High-temperature equation of state by a perturbation method. I. Nonpolar gases. 1510.
- Zweifel, P. F. Capture-positron branching ratios. 78.
- Nuclear orbital assignments for Ta^{180} . 1368.
- and Hurwitz, H. jr. Transformation of scattering cross sections. 2390.
- Zwerdling, Solomon and Halford, Ralph S. Direct production of spectroscopic specimens from single crystals by controlled growth from a vapor; infrared

absorption anisotropy and induced molecular motion in a single crystal of benzene. 445.

Zwicker, E. Verdeckung von Schmalbandgeräuschen durch Sinustöne. 2299.

Zwicky, Fritz. Méthodes pour la détermination en valeur absolue de distances extragalactiques. 1699.

Zwietering, P. and Koks, H. L. T. Pore-size distribution of porous iron. 335.

Zwinggi, E. Vermehrungsrate der stabilen Bevölkerung. 873.

Zwolinski, Bruno J. s. Partridge, William S. 841.

Zytowitsch, W. N. s. Iwanko, D. 244.

